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Volume 99, 1928

PENNSYLVANIA FARMER

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Vol. 99, No. 1



Harvest Season in the Grape Belt

Pittsburgh

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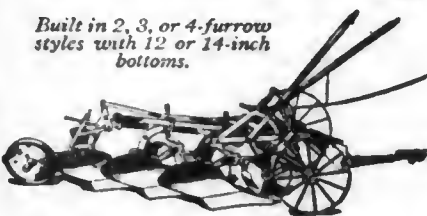
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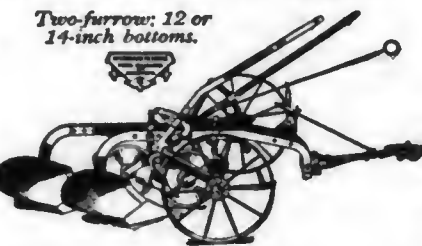
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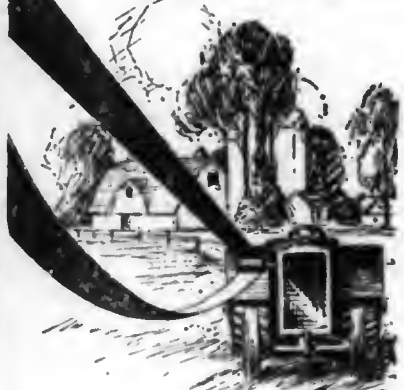


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Farm Facts and Fancies

By ALVA AGEE

Some Years Ago

THE annual date of the Ohio State Fair is to me a special reminder of T. D. Harman, Sr., of The Stockman, whom I saw there for the first time. Each year he would meet a host of his friends at this fair, as a great number of our readers remember. His sterling worth and genius for friendship were big assets of The Stockman. The first time we met he surprised me by asking for contributions to his paper. Speaking conservatively and accurately, this was some years ago, and ever since I have been mildly surprised that I was supposed to know something of special interest to farmers that needed telling. There was the effort—and still is—to learn about soils and crops, and telling should be based on definite knowledge if possible, but nature has a way of upsetting a supposed fact now and then, and branding it as only a fancy. It makes the telling hazardous unless one groups his facts and fancies and comes as near the truth as he is able. And so the "head" used for these comments fits into my needs. This applies to marketing as fully as to production which was uppermost in our thinking years ago. Production is no less important now—a good price does not get one anywhere if he has nothing to sell—but we have learned that growing something is only half the battle.

In Those Days

The potato crop was a prime consideration because, with me, it was a potato crop or no net income. One state asked for a bulletin on potato culture, and a part of it would make queer reading today because I knew little of heavy fertilization and of the care needed to provide seed such as some growers in northern regions now furnish. That bulletin was sound on humus in the soil, good tillage and as good seed as we knew how to get. But we didn't know how to spray thoroughly, and two thousand pounds of fertilizer per acre was not within our reckoning of a crop's needs. It isn't within its needs yet unless the crop will pay for such an application. That is a question of one's soil and market. The man who can fit the fertilizer to the soil and crop to secure the most net profit is a genius. Most people only approximate, or fall far below that. On the one hand we have sandy soils on the Atlantic seaboard using near a ton of fertilizer per acre for potatoes and some fertile mid-western soils using none. No universal rule works for the man, the field or the market, but it is usual that the more successful growers make relatively heavy applications.

Liming the Soil

Years ago there were few issues of The Stockman that did not say something about the use of lime on land. I had used some lime on a part of some fertilizer plats, and later there was clover on the limed strips and none on the others. Director Thorne, of the Ohio Station, was asked what it was all about. He looked the ground over, put his theories to test, and when he had the data he told us Ohio farmers what was good for us to know. We began liming and telling, and were right in each, which is something that doesn't happen every time in farming—on or off the farm.

Tile Drainage

Underdrainage got almost its share of attention, and that is rightly a big one. Dr. W. L. Chamberlain wrote much for The Ohio Farmer about the use of tile, and as I had about one-fifth as many miles of drains I wrote about one-fifth as much for The Stockman. It needed saying in those days

even more than now, but today many a farmer has no chance to break even because heat and air cannot get into the soil for weeks at a time. A farm paper does not look right to me if it is not urging tile drainage now and then, but when I rise, under the head of "the good of the order", to call attention to it I fail to get much evidence that others think anything needs to be said. I reckon that it is taken for granted that everybody knows what a man with wet land should do, and what most men would do if they had the money, and why use good paper space that way? Well, maybe so, but underdrainage can be responsible for the friendliest debt a man can carry.

The Soil's Share

The leading farm papers did good in their incessant discussion of the value of organic matter in the soil. Some of us had land that was backward about growing anything except rye for its own improvement. That friendly plant isn't particular, and every ton of tops and roots rotting in the soil meant that some unavailable mineral matter had been made over into stuff of value. We are way past rye now? Yes, as a rule—in respect to soil improvement we may be—we don't stand still when we are making progress—and yet I know a lot of land that would profit most from rye. The cowpea, which was much praised by Professor Massey in the South, was brought North, but the soy bean proved to like northern latitudes better. Its one fault is that it stores nearly all its nitrogen in the top, and the field that grew it may not get the manure from its feeding to help it out. But lime brought red clover back, and sweet clover forward, and did other things. The basic truth was the soil's hunger for a part of the organic matter it was producing. It "was", and is.

Selling Only the Best

The men who own the land owe no duty to the consuming public beyond supplying the amount of food actually needed. If only need were met, prices would be at a profitable level. We have some minor lines of production in which a strenuous effort is being made to control market supply by the use of grades so high that only enough gets by to insure a fair price. The plan seems fitted to some of California's fruit production, where growers have learned team-work. I have hoped it might be worked out for the chief areas of potato production, but I don't know. The same applies to fruits. The trouble is to get cooperation in the effort from separated areas of heavy production. It is, as yet, a goal around the corner, and difficult to see. But our big staple products—they must have something bigger than a raisin, or even a prune, as a guide to market.

Straw under a Tree

We are told that the law of demand and supply is like the law of gravity, and cannot be suspended. Granting that, we do know that when a heavy mulch of straw is put under a tree the falling fruit doesn't suffer so much. Our surplus needs a cushion. The most encouraging thing about the market situation, as I see it, is that it is being studied by the best minds of this country. It was a long time coming bad. No one person has been embraced with more wisdom than all of us put together in finding a practical cure. Some sort of easement may be found. In the meantime we should cut the surplus down. How? That's what we all are talking about, and action does sometimes follow—sometimes.

You can save enough on a smart dress

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You will never find a "Sale" in a J. C. Penney Company store—but you will always find values. This business is founded on the principle of always giving you more for your dollar—nicer clothes, for instance, in better taste and in greater variety to choose from. The new Fall offerings illustrated on this page show, in a general way, the type of styles in J. C. Penney Company stores.

Women who shop at our stores tell us they can't do better in New York. More and more women are finding out that values are greater, styles newer in a J. C. Penney Company store. Their response to big values has caused our tremendous growth from one little store in Wyoming to the largest group of department stores in the world.

Our style experts are out from morning till night, finding out the newest things the great dress-makers are designing. They

learn what Paris is doing. They see what Fifth Avenue is wearing. And when they buy smart dresses, chic coats, for you, naturally the enormous purchasing power of our 1000 stores means they can place larger orders, obtain lower prices. These are the savings you see in the J. C. Penney Company store near you.



Travel coats must be well cut and expertly finished, but seldom are they then so moderately priced! A new wrinkle-proof, dust-proof fabric fashions this smart coat. Coats of this type, outstanding values, at \$24.75.

Smart lines, beautiful finishing and fine quality silks are amazingly priced in such dresses as the crepe satin (left), or the type represented by the canton crepe (right) with its lovely velvet appliqué and flattering ties—many similar styles at \$9.90.



In such garments as these you get the utmost in style and quality at the J. C. Penney Company stores. The navy canton frock has vest and bound buttonholes of white crepe, hand finished neck and plaits stitched around the hips. Many pretty models at \$14.75.

Fine broadcloth, now so smart, is expertly cut and tailored

in these coats, lined with supple crepe satin. Soft French Beaver fashions the generous collar and gauntlet cuffs of the woman's coat (center). On the coat at right, silver opesum is used for cuffs and shawl collar, finished with animal tail. Clever seaming on back. A variety of styles at \$39.75.

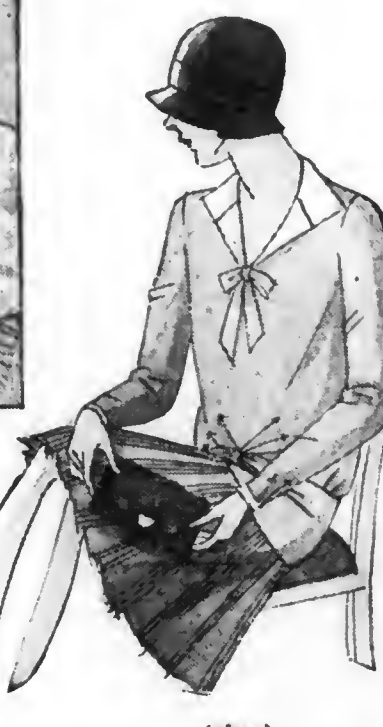
The Golden Rule applied to business.

THE SECRET of this business's success is no secret. For generations the Golden Rule has been preached. I simply put it into practice. In 25 years my rude little shack in a prairie town in Wyoming has grown to a group of over 1000 department stores:

"There must be something in it," you say? Just the simple principle of doing unto others as you would have them do. This has led us to give a better article for the money and to take a smaller profit. Naturally, people brought us their trade. Of course, they did—and still do. As we grow bigger, we are able to give you greater values than ever. The same principle of giving more continues to cause us to grow, year after year.

(Signed)

J. C. Penney



Every detail contributes to the chic of the frocks you find at J. C. Penney Company stores. Notice, for example, embroidered arrowheads, self-covered buttons, matching collar and cuffs, and two-toned ties in this junior dress of canton crepe. Many pretty dresses like this, priced at \$14.75. Naturally, not all our stores carry every garment shown on this page. But any J. C. Penney Company store can show you values like these, in a wide variety of styles.

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With an American Editor Abroad

English Cooks and Irish Countrysides What One Thinks About when Away from Home

AN AMERICAN who lingers long in Britain is sure to yearn for the varied diet of his native land. For the British hotel menu has a very limited range, both in material and method of preparation, and it soon becomes wearisome to one accustomed to the great variety of good things in our country. British mutton, beef and bacon are all good, but day after day and week after week with the same things prepared in the same way dulls the edge of one's appreciation. The crime of boiling fish is common among British cooks, who supply a sauce to flavor what they have ruined in the kitchen. Both England and Scotland grow wonderful potatoes, but most of them get to the table boiled, just plain boiled after being parced. I discussed with the editors of an agricultural journal the consumption of potatoes and ventured the suggestion that it might be enlarged if the cooks would learn how to prepare them for the table. One of these editors agreed with me, but I found he had lived in Western Canada and learned to appreciate variety in potatoes as in other things. Cabbage and cauliflower, both boiled, with green peas in season and likewise boiled, are the staple vegetables in addition to potatoes. The Briton never tires of them, prospers on them, and longs for his own cooking whenever he goes away from home. At one meeting I heard a speaker tell how glad he was to get back to real English food and I wondered why anybody would want to do that—until I remembered that the things a man enjoys in the hungry days of boyhood he will always enjoy. A young lady, who I learned later was editor of a domestic journal, asked me whether I did not consider British food superior to our own. I gave her a rather mild expression of my opinion about about said food, but she didn't seem to appreciate it. She reads an American household magazine, calls the concoctions therein described "messes", and condemns them without a trial, while she absorbs the narrow but wholesome diet of her own country.

Along the Clyde

To the casual observer there appears to be much idle shipping in both England and Scotland. All along the upper Clyde were idle ships at anchor. But some of them are doubtless laid up for overhauling, so the depression in this line may not be so great as it appears to those who know little about the matter. The Clyde builds many ships, and some are under construction now, which indicates that there may be use for more even if some are idle now.

We crossed from Glasgow to Belfast at night in a steamer well packed with passengers, many of them traveling on cheap excursion tickets for their holiday or vacation. Holidays go by districts over here, each city or county having its week of vacation, when thousands leave their work and business is carried on by comparatively few. The boat was not palatial but it took us over. I prefer the shorter and easier way of getting into and out of Ireland via Wales to the longer trip from English or Scotch ports. At Belfast the big shipyards are nearly idle, and a revival in ship-building is one of the industrial hopes of that city. A long line of unemployed men was an impressive sight there as it was in several other cities. I am told that many of the unemployed don't really want enough work to keep them off the dole, but it is hard to believe that so many would look for employment if they didn't want it and need it too. Unemployment is a serious problem in Britain and Ireland too.

Two Nations in One Island

British money bears the inscription "the United Kingdom and Northern Ireland". That is because Southern Ireland is an independent nation, the Irish Free State, and issues its own currency. The money, however, in the same units as the English money and the latter goes just the same as Irish everywhere. Six counties in Northern Ireland are still under British rule, the rest are all in the Free State. It is not in good taste for a foreigner to discuss politics or religion in Ireland and I was warned to let these subjects alone—which was easy enough as I

know little of either. But some things compel a little discussion. For instance, one could hardly help wondering about the advantages of two countries in so small an island. I had a driver and a car and was suited with both, but the car could not cross the border into the Free State without a deposit or bond, nor could the driver work there without a special license that cost both time and money, for he happened to be a native of the North. Customs officials of the Free State examine baggage at the border, and when one goes back to England it must pass the English customs. Passports must be vised for the Free State, we were told, but nobody ever asked to see ours. The inspector at the border said he was not interested in it, and he merely glanced at the baggage. Several Irishmen in both regions brought up the subjects we were warned not to discuss, evidently for the kindly purpose of giving us information. From those of the North we learned that the people of the South would like to return to British rule; and from those of the South that the people of the North would like to get into the Free State. Probably neither view represents the will of the majority in either case, but I didn't try to investigate that matter. I concluded, after knocking about in both regions, that the people were kindly and honest in both, that anybody who behaves himself will have no trouble in either, and will be glad he went there. For Ireland is a land full of interest and beauty. It is not so well known as England and Scotland because it has had a lesser place in popular literature. Sir Walter Scott, for example, has taken to his border land hundreds of thousands of tourists and millions of money and continues to take them, though he has rested in his tomb in Dryburgh Abbey for nearly a century. Ireland is trying to attract tourists now and with some success. An author like Scott would be worth untold millions to her.

Small Well-Kept Farms

The average size of the farms in northern Ireland is 36 acres. The fields are small and enclosed mainly by stone walls. But they are well farmed, the cottages are well built and kept, gardens are good and flowers abundant. Most of the farms are owned and operated by those who live on them, and this is true of all Ireland, for the land acts have allowed the tenant to purchase at a price established by the court as equitable and to pay on the installment plan. The prices paid were according to the amount of rent in effect at the time of the transfer. Usually eighteen or twenty years rent constituted the purchase price. The landlords were paid by the sale of bonds or debentures secured by the lands, and of course that security improved every year as the installments were paid. During the war, when all British securities went to low levels, some prudent Irishmen bought these land bonds at a low price and thus reduced the cost of their farms. Probably

Ireland has now a larger percentage of farms in the hands of owners and a smaller percentage in the hands of tenants than any other country, though all owners have not yet paid for their farms.

Wild and Picturesque

From Belfast we drove around the northern coast of Ireland on an excellent road, and a beautiful drive it is, with the sea, the high cliffs, the thatched farm houses and the green fields for variety. On the way we took in one of the beautiful nine vales of Antrim, Glenariff. The wild glen at the head, the steep mountains on either side, the fertile farms and a winding stream in the middle, the sea beyond the mouth of the Glen and the hills of Scotland dim beyond the sea make a picture that cannot be adequately described. The same is true of the Giant's Causeway, which we visited on the way. This is one of the windiest spots I ever saw, and that reminded me of Mr. Windigale of Yale, whom I met at the Wisconsin-Minnesota football game in 1897 and never met again. That reminded me too that I stopped at the Chicago fat-stock show, the predecessor of the present International, on the way home from Minnesota and there met a man who is known to most readers—Prof. C. S. Plumb, then of Indiana but for years of Ohio State University. All that and a lot of other things were brought up by a stiff wind on the coast of Ireland—but they are not interesting to anybody except the fellow who may wonder why he thinks about what he does think about in a strange land.

E. S. B.

Cows, Lime and Sunlight

THE cows are conducting an interesting experiment this season and perhaps to some extent the milkers will be able to read the results. In fact the cows have been conducting this experiment for a good many years, but as yet they have not found any one to write it up for them and explain it so any one but cows could understand it. The decrease in milk flow during midsummer has been regarded as a certainty and is thought due to a variety of causes, among them flies, hot weather and short pastures. But feeding, blankets, fly chasers and a cool place have not entirely prevented this drop. It has been found at the Wisconsin Experiment Station, according to their latest report, that this drop may be due to the lack of lime. Milk contains lime and when there is little lime there is little milk.

Much of practical significance has been recently learned regarding the absorption of lime by animals. Many animals including children, goats, pigs and chickens do not absorb sufficient lime from their food unless they have available either ultra-violet light or vitamin D. Ultra-violet light is composed of wave lengths too short to be seen with the eye. When light is broken up into the different wave lengths as we see in the rainbow the ultra violet occurs just beyond the violet which we see. Vitamin D occurs in cod-liver oil and particularly in the parts of plants which are cured in sunlight or ultra-violet light. Young children are fed cod-liver oil to prevent rickets, leg weakness and insure good teeth. In the spring when there is not much sunlight little chickens and pigs are provided with cod-liver oil feeds or special kinds of gels which insure the passage of the ultra-violet light into their houses. It seems reasonable, therefore, that if a cow suffers from lack of lime during the summer when the amount of ultra-violet light is greatest it must be due not to lack of ability to absorb lime but to the lack of lime itself. Still it is a common observation that a calf likes to stay in the dark and does well there, but a pig or a chicken kept in the dark while young soon gives up the struggle. The Wisconsin people have found explanation for this. Ultra-violet light has a much less pronounced effect on the absorption of lime by cattle than other animals.

L. A. ROBERTSON.

Does the Spraying When It Is Needed



The Schlenker brothers of Berks county find that this potato spraying outfit mounted on a motor truck enables them to do their spraying in a hurry when it is needed. Incidentally, this firm purchased one of the first harvester-threshers combines used in Berks county.

To Beat the Early Frosts

Lancaster County Tobacco Needs More Fertilizer

EARLY in August I had opportunity to visit Lancaster county for the first time during the growing season and was interested in the appearance of Broadleaf tobacco as grown in Lancaster county. The week before I visited Hartford county, Connecticut, and made a trip through the tobacco section, so that conditions in the two sections and the appearance of the crops in both sections were fresh in my mind. That tobacco was not larger on August 1st was the first surprise I received in Lancaster county. Most of the fields looked healthy and well cared for, but the tobacco did not seem to be growing anything like the way it grows in the Connecticut Valley. A few fields had tobacco 12 inches high on August 1st, but a large proportion was much smaller. Interviews with several farmers in Lancaster county helped me to come to a conclusion as to the cause for the poor growth of tobacco made early in the season.

"Every year many fields of tobacco are damaged by frost before the tobacco is ready to harvest" was the statement of one prominent grower, packer and buyer. One of the problems in Lancaster county is to mature the Broadleaf tobacco before frost in September. The month of August is the tobacco growing month, but a good start in July is essential to avoid frost injury at the end of the season.

Lancaster county tobacco growers use a large amount of barnyard manure produced on the farms, as the result of feeding steers through the winter and spring. This manure contains a large amount of straw and heavy applications are made for tobacco. Without doubt the use of large amounts of manure help materially to maintain the fertility of Lancaster county farms, but the tobacco crop evidently needs something more. The important need seems to be more available nitrogen earlier in the season, especially through July.

One effect of large amounts of strawy barnyard manure is to tie up available nitrates early in the season. The bacteria that decompose this strawy manure require nitrates to furnish energy. This robs the crop of available nitrogen early in the season. During the latter part of August and the first part of September, the manure has decomposed sufficiently to furnish large amounts of nitrogen and the crop grows rapidly at that time. The result is a race between tobacco and frost, and some fields of tobacco lose in this annual race.

A visit to the tobacco experimental work at Ephrata and a talk with Professor Otto Olson helped to convince me that the experience and practices of Connecticut Valley tobacco growers furnish an object lesson that Pennsylvania growers can use to advantage. Professor Olson's work shows the advantage of using available nitrogen for tobacco in addition to the stable manure that is available. Different forms of available nitrogen can be used and work is under way to compare the results of different sources. The Connecticut Tobacco Experiment Station located at Windsor, Connecticut, is making similar studies to show the influence and effect of different forms of nitrogen on tobacco. Among the new forms of nitrogen that have come on the market within recent years both Experiment Stations are testing urea and nitrate of potash and getting excellent results in growth and quality of tobacco.

Urea is a new form of soluble organic nitrogen that seems particularly well adapted to tobacco. It is very much different from the well-known sources of available nitrogen like nitrate of soda and sulphate of ammonia. Urea is made from atmospheric nitrogen by chemical processes and is actually identical with the nitrogen contained in liquid manure. It is a chemical organic form of nitrogen that gives quick and lasting response with most crops, especially tobacco.

Nitrate of potash furnishes nitrate nitrogen and also a form of potash that has been found to be very excellent for tobacco. High grade nitrate of potash contains 15 per cent ammonia and 44 per cent potash. Pennsylvania tobacco, according to Professor Olson, needs potash to supplement the manure that is applied. Professor Olson has been using nitrate of potash in the experimental work at Ephrata for several years with excellent results both in yield and quality.

At the Connecticut Tobacco Station, Dr. P. J. Anderson in his last report published March, 1928, states that in tobacco "burn tests" nitrate of potash gave nearly as good results as carbonate of potash, which for years has been considered the very highest



This Lancaster county tobacco plot receives no manure in the three year rotation. Instead, the following amounts of commercial fertilizer are applied to the acre: 375 pounds cottonseed meal, 57 pounds urea, 460 pounds precipitated bone, 465 pounds carbonate of potash.

quality of potash for tobacco but almost too expensive to use commercially.

The burn and quality of Pennsylvania tobacco is an item that is becoming more and more important to growers. If nitrate of potash will furnish a desirable form of potash and give a favorable burn, tobacco growers in Lancaster county will do well to try it out. Nitrate of potash contains available nitrogen in the nitrate form and this may be very helpful to Lancaster county tobacco to make growth early in the season, namely in July.

Tobacco growing, no matter where it is done, has enough unavoidable risks connected with it to make every grower interested in reducing, or avoiding any hazards possible. The risk of frost injury to tobacco seems like an easy one to remedy in Pennsylvania. In my fifteen years' experience with Connecticut Valley tobacco frost injury to tobacco has been very exceptional. In Lancaster county, located fully 100 miles farther south than the Connecticut Valley tobacco section, frost injury of tobacco ought to be an unheard of occurrence. Proper fertilization with sufficient available nitrogen to give a good growth through the month of July will, in my opinion, not only make a better quality and weight of tobacco, but will eliminate danger of frost injury.

Lancaster county tobacco soils are not leachy. Available nitrogen applied before setting is therefore feasible. More nitrogen in the original fertilization before the tobacco is set will save time, labor and inconvenience. Furthermore, it will assure the crop a supply when and where needed. Applying available nitrogen at the time of hoeing the tobacco is possible, but seldom necessary, if a sufficient amount is used in the fertilizer that is applied before setting the tobacco.

B. G. S.

It's Our Inferiority Complex That Needs Relief

THERE has been entirely too much talk about farm relief in the past several months. I think the time has come to do some plain speaking on that subject. Entirely too many think that farm relief means that the United States Congress will pass a law or two and then all farmers will become rich. And I fear that many are wasting their time waiting for that to come. They put too much faith in the hope that the government will do it all.

The man who expects that any sort of legislation can make the farmer prosperous no matter how poorly he farms is following a will-o'-the-wisp. It will only lead him deeper into the slough of despond. The promise that the government will help the farmer is doing great harm. Too many are waiting for this help instead of realizing that the only help they can expect must come largely through themselves. As soon as we can quit following the chimera of government aid and get together to work out our own relief we will begin to see better times. One of the truest axioms Franklin ever stated was this: "If you want your work done go, if not send."

I do not believe the wailing cry heard so much that the farmer is down-trodden and oppressed, poverty stricken and destitute. We have entirely too much of the "inferiority complex" in our natures. We weep over our imaginary destitution when we might be much happier if we would "count our blessings". Troubles will disappear if we will only take up arms against them, but the whiner is overwhelmed by his own imagination. Just take a survey of your own neighborhood. You will find that 60 per cent of the farms are owned by those living on them. Note the good houses, well painted and kept

neat. See the big barns, the fences and the crops. Many of them have bathrooms and electric lights. Any one who desires has a radio and all have autos. Compare this condition with the time when you were a boy. In that day a dime was a curiosity and when you went to the county fair you were well supplied if you had fifteen cents all your own to spend. Let us have done with this everlasting poor mouth and be glad we are as well off as we are.

Consider the grocer from whom you buy your sugar. If you only knew the eternal struggle he faces to keep going you would envy him no more. He dare not refuse credit to his customer nor fail to meet his bills when they come due. He is at his post day in and day out. He must know every new selling and buying method or his competitor outruns him. Busy days and sleepless nights are his lot and portion. And if he for one little moment forgets his business he is driven to the wall.

I see my neighbor across the street go down to the store at 5:30 in the morning. He comes back at seven for breakfast, then back to the store until the noon meal. Again he returns to the store, hoping he may be able to snatch a few moments for supper. Then again the store until nine p. m. and on Saturday evenings he does well to leave for his bed at midnight. This is the regular daily program.

There are times in the year when the farmer is busy from early morn until late at night, but there are other times when he has many hours of leisure. The long winter evenings are spent at the fireside with the family and not behind the counter trying to pacify an outraged customer.

I look around me and see thousands of fine farms

with every convenience. I remember that these men began with nothing and now have built up a fine home and every assurance of comfort to the end of their days. I wonder how many laborers or business men have done as well in a lifetime of struggle. I think we do not realize how well off we are. Of course there are lean years and periods of years with the fat, but take it all in all we ought to rejoice. When hard times strike the laborer he starves until better times come. The business man sees his little business sold and turned over to strangers. But the farmer draws his belt a little tighter and waits until better times come. He may not have quite all he wants, but he weathers the storm, and that is more than many others can do.

I can count at this moment a score of farmers who are making no complaint. They are "on the job" at all times. They stay at home and take care of things. They plan intelligently and plant properly and they reap when harvest time comes. They have their farms paid for, a surplus in the bank and contentment at the fireside. But I see others on the road continuously. Seldom I drive through a town without seeing fifty to one hundred autos at the curb. Streets are thronged with men who might better be at work. I examine the books at the filling station and I find bills for gas and oil yet unpaid. Then I remember that Franklin said we are taxed far more by our desires than by the state. I am forced to the conclusion that the best farm relief is to get together and tackle this problem ourselves with intelligence and common sense. We will then get all the farm relief we want.

BERT HIGHLANDS.

A Half Century's Experience with Silos

His Neighbors Laughed When This Farmer First Made "Cow Saurkraut"

WE are busy filling our silo. I have been filling silos for nearly fifty years—and am quite young yet. My first silo was a "noble experiment" indeed, a disused cistern, and from that I have witnessed all the evolutionary changes, theories and claims up to the present day. They used to laugh at my experimenting with the "cow sauer kraut", as they derisively called it. Visitors—descendants of Thomas the Doubter—used to say to me, "Will the cows eat that stuff?" And I would solemnly assure them that the cows wouldn't. I would say, "We just put it in to them and let them look it over and then take it out."

I was young and flippant in those days and really had little patience with foolish questions. Since then, however, I have seen many of those early doubters and scoffers build and use silos. Many of them putting on airs of superior knowledge and attainments.

But that first silo, the old cistern, was a joke. It was very easy to put the stuff into it but a vexation to get it out. It was only about ten feet deep and of course we had a feed very much overcharged with acid and the smell of it was a haunting atmospheric horror.

I have never fallen in with the notion that the corn for the silo should be allowed to get almost ripe, as in that stage carrying more dry matter. I am more desirous of retaining succulence and am satisfied with the dry matter elaborated in the corn when the grain is beginning to glaze. I like to use a variety of corn that matures its ear while the fodder remains comparatively green. We thus get the well-filled-out and maturing ear while retaining the green, toothsome life of the stalk.

I have used various strains of seed, from the very large southern white corn that grew saplings for stalks down to the small fodders with supposedly more ears, but now for several years

I have used the Lancaster County Sure Crop (I am not selling seed), and like it better than any variety we have ever used. On our land it grows plenty of fodder, stalk and blades, matures its ear early and has a long, slim ear, giving us a thorough distribution of grain in the silage. From this we have very satisfactory feeding results.

In filling we work rather deliberately, avoiding the rush and hurry practiced by many in trying to get the job over and done with. We now and then stop and do some other work for a day or so and give ourselves the encouragement of a change of occupation. This plan also gives the silage a chance

to settle, permits us to feed the cut corn for a while before the silo is closed and enables us to fill the silo by having the silo practically full.

During the time of filling we make no special effort at tramping the corn. We try to keep a level in the silo to throw the cut corn around and keep the contents level—with a little elevation around the outside. When any tramping is done beyond the necessary moving around of the person doing the leveling it is done around the wall. We know that the weight of the atmosphere as the carbonic acid gas formed by the heating mass drives out the air from the cut corn is much heavier than any tramping we would care to invest in a useless operation, and we save ourselves the effort.

Often C. O. D. Means a Human Mortgage

WHAT is the matter with farming? One meets that question at every turn. Well one of the things radically wrong, and one seldom mentioned, is explained by the hoary old story of the youth who was asked in examination what the letters C. O. D. meant, and he confidently wrote, "Call on Dad." The dads on the farms are called on by absent children in college or business or professional life to the extent of their going without the necessities of life in many instances. Being ambitious for their children, and trusting, believing all that those children write home, they go to the limit to supply funds. If the factory shuts down for a week or a month the young man bundles into his installment plan automobile the entire family including the dog and goes to visit at the dear old farm. If he gets in a tight box when the installment comes due he writes for a little temporary loan, and often forgets to pay the loan.

In every community are men and women who might steer clear of debt and live at ease on the farm they worked hard to secure, but for the calls for aid. Like the S. O. S. signal over the waters comes the cry. Mary would like to take an office position if mother will take the children. High prices and uncertainty of John's daily work are given as the reason for shifting the children to the farm. Of course it is only a temporary condition, Mary writes, but as a means of helping them to meet their obligations it seems the only plan in sight. In one instance the town daughter unloaded three lively children on her parents and allowed them to remain there for a whole year while she was enjoying a good salary and freedom from family responsibilities. One farmer past sixty is supporting two families besides his own, yet neither the son nor the son-in-law will come out to help on the farm. They are "looking for work" and cannot leave for fear some job might get away.

These are the things that are the matter with farming in many instances. The farm is put to such pressure to support more than its quota that it simply cannot respond. What would be a good living, and plenty for taxes and repairs for the farmer and his wife, cannot possibly suffice for three families with only one producer, so debt is the result, with overwork for the father. One couple nearing seventy are loaded down with three lively children as the result of a divorce. The man will not support his children, so his wife threatens him with the workhouse or prison unless her mother-in-law provides for the youngsters. To keep a worthless son out of prison the old couple struggle on. Even ten ant farmers are called on for aid by absent relatives. In one case the farmer and his wife went into bankruptcy because of the burden of invalid parents. No body in town among the relatives would have them bringing forward the excuse that old people cannot live amid the noise and confusion of the city, so a tired man past sixty and his wife carried the burden until their farm was hopelessly mortgaged.

In case of illness, or of children left orphans by death, every effort should be made to care for dependents, but the cure for farm ills in many instances is to get rid of human mortgages that sap the life of farm and farmer.

FARM LOAN SECRETARY.



The Silo Is a Necessity on the Modern Dairy Farm

The Story of a Farm and a Home

I AM a great believer in changing crops and giving the land a chance, especially if one has children and wants to keep them with him. We have six, five boys and a girl. Our farm isn't large, only 85 usable acres. But we have been able to keep our children fed, clothed and interested in the place, with a good chance of sending them all to college. We couldn't have done that raising just wheat. We couldn't have made as much money or had as nice a home or kept the children as interested. From the time my children could toddle out to the barn to watch me milk I've called them partners and tried to treat them as such. That's as much a part of my scheme of farm management as my rotation.

Our place runs along a main road. People stop off now and then to ask for a drink of water and then sit on the porch or under the trees and visit for a while. It may be somebody we have known all our lives or it may be a stranger from a long way off. I suppose we have as much work to do, and do as much, as any family in the country, but when anybody stops in like this my children know what I want them to do. I want them to stop what they're doing, if it can be stopped at that point, and come up and meet the company and take part in what is being said.

Don't you remember when you were young what a break it made in your day just to see somebody turn in at your lane and drive up to the house? How your curiosity got to working, and how left out of things you felt working off there all by yourself? I don't want any children of mine feeling that way. "This isn't just my place, Everything here is as much yours as it is mine," I tell them, and I want them to feel as much responsible for keeping up the home end of the thing as the farm end. My bank has orders to honor any checks they draw, and they carry the pocketbook as much as I do. Half the time I don't know where it is.

My wife and I started in on 55 acres across the

road, living in what wasn't any better than a shack. That was 22 years ago. I was 36 years old and it was the first place of my own I'd ever had. We were awfully poor. My wife had been a school teacher and she had to keep up with it and cook and keep house for me at the same time, while I put in our first crops. We didn't make much, but we took pains to spend even less. That's a big thing in farming, it seems to me, not to spend all you make. Lots of fellows just live by selling you what you don't need or what you could get better by raising it yourself. We have always made a good garden and had our own milk and tried in every way we could to keep from running up store bills.

In 1906, just about the time our girl Emily was born, we were able to buy 55 acres more this side of the road. We got it for \$1,500—35 acres cleared. We had to borrow \$1,000 of that. We'd had our eye on it for some time and knew just what it was.

Cows are the greatest thing in the world on a farm. They make you diversify. It was when we started keeping around 14 of them and selling the milk that we got headed into our present cropping plan. Our 14 cows have brought us in around \$160 a month, at a feed cost of about \$70 a month, the past six months. Our 85 Barred Rock hens bring in around \$35 a month.

Ever since we got straightened out here, my aim has been to pick up enough from the sidelines to pay for putting in the cash crop, so whatever comes in for the wheat is clear money. It works out that way, by and large. Generally when that wheat check comes in I can put it in the bank. Of course we don't do that well every year, but even so we're satisfied. There's more to farming than the money in it. Folks get so that they want to make money so fast nowadays that they go off somewhere and fall through. We've been mighty lucky, no fires or anything like that, and not a \$50 doctor bill in 22 years.

MARYLAND FARMER.

Eastern Farm Comments

By MILES HORST

THE Pennsylvania Electrical Association announces that during the first eight months of 1923, 1,138 miles of rural electric lines were constructed in the state of Pennsylvania serving 12,590 new customers, 3,332 of which were farmers. On January 1st of this year the total mileage of rural lines in the state was 1,441, serving 4,317 farmers. It is evident that by the end of this year the construction of lines and customers added during the year will double all lineage and farm users of electrical energy of all previous years.

IN his address to the annual convention of the Pennsylvania Electrical Association held at Bedford Springs last week, John S. Wise, president of the Association called the attention of the electrical industry to one of the knottiest problems faced in bringing electricity to the farms. He suggested "to those responsible for the designing and building of rural lines the great desirability of simplified construction and the lowering of the cost of such pole lines, to the end that, as the network of wires gradually covers the state, the minimum monthly guarantee based on such costs may be kept at the lowest possible point." While the extension of electricity into rural communities is progressing rapidly, it would still more so were guarantees required not so high. Costs of erecting pole lines have been materially reduced by the utilities during the past year, but in many sections we believe they can be still further lowered with a consequent wider use of current by farmers.

A COMBINED meeting of the Pennsylvania State Baby Chick Association and the Pennsylvania State Poultry Association to be held at State College, October 25 and 26, has been announced by Prof. H. C. Kuandel. On the program will appear Prof. W. R. Graham of the Ontario Agricultural College and Dr. D. C. Kennard in charge of poultry investigation work at the Ohio Agricultural Experiment Station. Both of these men have been doing outstanding work in the breeding of poultry and in the investigation of poultry diseases. A number of leaders in the state poultry industry will also appear on the program. In connection with this meeting will be held the Sixth Annual State Standard Production Poultry Show, which in past years has been one of the outstanding poultry shows in the state.

CUMBERLAND county, Pa., dairymen held their third annual dairy show, August 22 and 23, at Mt. Holly Springs. The progress breeders in this county are making in the improvement of their dairy cattle is evident as one studies the exhibits year after year. They are developing a better type of animal and are showing their cattle to better advantage. The records show an improvement in production. This year 255 head of Holsteins, Guernseys and Ayrshires were included in the show and they came from 40 different farms in the county. New breeders have been added to the list since last year and for the first time Ayrshires appeared in the show. During the show judging contests were conducted in which 74 adults participated. There were also various educational demonstrations.

TRAVELING in two large bus coaches and ten private cars, 94 Ohio potato growers visited outstanding potato projects in various sections of Pennsylvania last week. The potato seed fields of Potter county appeared first on their program. Here the Potter County Chamber of Commerce served as

host and in private cars took the visitors to the leading seed-producing fields in the county. Continuing on south over the Coudersport Pike the Ohio party next stopped at Lewis Reitz's farm near Lewisburg where his 25,000 bushel capacity potato storage was inspected. Here too could be seen 80 acres of potatoes and a farm equipped with modern potato machinery. At the Pennsylvania State College another storage cellar was studied and the various test plots on the farms examined. Dr. E. L. Nixon's potato fields as well as A. C. Kepler's, both near Pine Grove Mills, concluded the stops made by the Ohio party in this state.

McKEAN county has gained an enviable reputation by the performance of its draft horses. At the Smethport Fair last year a team owned by S. H. Elder of Smethport set the record of performance of light-weight teams—teams weighing less than 3,000 pounds—for the state. This year a team of grade Belgians owned by Lloyd Lee of Bradford set a new state record for heavy-weight teams on the same grounds. They exerted a tractive pull of 3,100 pounds on the State College machine and held it for the distance of 27½ feet.

KING PONTIAC SEGIS KONDYKE, a bull owned by the Montgomery County Holstein Bull Association, according to the county's cow-testing association records, has increased the production of his daughters over that of their dams 2,632 pounds of milk and 100 pounds of butterfat a year. Since his daughters are kept in the same herds as their dams, their increased production must be credited to the greater producing power transmitted through the bull. This bull has been used in the association for eight years, has headed three different bloes and today has more than a hundred daughters which are now or soon will be in production. His usefulness will continue for several more years. He has found his chance of showing his worth through the chief feature of bull association activity—the exchanging of sires among different bloes.

LAST week I bought 300 gallons of gasoline to run two tractors used in filling my silos and preparing my corn stubble ground for fall seeding. On this gasoline I was required to pay a gas tax of \$9. My total tax on gasoline used solely for farm purposes will run about \$26 for the year. There are roughly 15,000 tractors in use on Pennsylvania farms, most of them using gasoline for fuel in amounts more or less equal to that which I am using. In being forced to pay this tax we are paying a tax against production, a tax not levied against producers using any other kind of fuel. And that includes most industries. The farmers are paying a large share of the cost of maintaining the roads of the state through their township road taxes. They are paying the tax on gasoline used in their automobiles as do all other automobile users. It is unjust that they should again be singled out to pay another road tax on fuel used on their farms.

POTATO production for the United States for 1923, according to the federal estimates of September 1st, will be 466,815,000 bushels, 50,000,000 bushels more than the 1922 harvest and 63,000,000 bushels in excess of the past five-year average production. In analyzing this report we find that there is an increase of 22,000,000 bushels in the central lake states including Ohio, Michigan, Wisconsin,

Minnesota, North Dakota and Nebraska; an increase of 9,000,000 bushels in the eastern lake states including Maine, New York and Pennsylvania; and an increase of 14,000,000 bushels in the western lake states—that is, the Rocky Mountain and Pacific Coast states. Maine and New York, both competitors of Pennsylvania, have practically the same crop as they have had for the average of the last five years. Pennsylvania shows an increase of 8,000,000 bushels over her past five-year average, while Michigan, Wisconsin and Minnesota, potential competitors of Pennsylvania, together show an increase of 16,000,000 bushels over their combined average of the last five years. The crop as a whole is of good quality although severe blight is reported in Maine and certain sections of New York and Pennsylvania. Carlot shipments of the early crop this year up to September 1st exceed last year's shipments to the same date by 8,660 cars. This heavy shipment of early potatoes has retarded the shipment of late potatoes, reports showing 5,000 cars from the 19 late surplus producing states short of last year's shipments to the same date.

New Jersey Notes

THE annual fall legislative conference of the New Jersey Federation-New Jersey Grange, to be held in Trenton in late September, will be divided this season into two sections. The first section, to be held during the latter part of this month, will be similar to the conferences conducted in previous years. Legislative matters will be discussed and adopted and then the conference will be adjourned for a call later on in the fall.

The plan is to have the delegates take back to their Grange and County Board meetings the matters brought before the conference. Each farm organization will then take action on the various matters discussed. The later section of the conference will unite the wishes of each body into a complete program, with the assurance that the conference is actually a cross-section of farm opinion in New Jersey.—B.

STEALING of farm products in New Jersey assumed a new angle recently when cattle rustlers at two different points in southern New Jersey stole cows under cover of night. One case was in Gloucester county near Mullica Hill while another was near Moorestown in Burlington county.

Two men were caught after considerable detective work in the latter case, and evidence gathered indicates that they are likewise responsible in the Gloucester county steal. State police and local authorities have cooperated excellently with the farmers and there is no indication that cattle rustling will come into the same category as chicken stealing.—B.

TOMATO growers of the southern New Jersey counties are being represented at the tariff hearing in Washington on September 18 by an able committee. In mid-August the Farm Bureau in conjunction with the local Boards of Agriculture in the tomato counties met at Woodbury to define and unify their wishes on the tomato tariff.

Approximately 25 representatives from the five counties gathered for the conference and selected the following committee to represent New Jersey's tomato interests in Washington at the tariff hearings: Talman Craig of Burlington county; Allan Ebert of Camden county; Wade Heritage of Gloucester county; Edmund Shimp of Salem county, and Howard B. Hancock of Cumberland county. The State Department of Agriculture and Experiment Station personnel are securing further statistical data on tomato growing in the state, which the committee will present at Washington.—B.



Mr. J. L. Reitz of Union county, Pennsylvania, and part of his farm and buildings. This scene gives an idea of the soil fertility on this famous potato

By W. D. ZINN

The writer has spent a great many days in this county during the last twenty-five years, but none of them was more pleasant than the eight days spent from August 21 to August 28 in 1921. Our first meeting was held at Mt. Horch Church on the evening of the 21st. Here we found a new church that cost between five and six thousand dollars. This church stands as a monument to the progressive social, moral and religious status of the people in this community. The soil in the community is not as fertile as in many places, but the minds of the people are very fertile.

From Mt. Horeb we went to the Schmucker school house where we held three sessions the next day. More than two hours was spent in a round-table discussion and there were very few farmers present who did not join the discussion. Mr. Howard Dahmer had a fine field of alfalfa near the school house and we took that as a text and threshed out the alfalfa question. This is one of the leading counties of the

state in sheep production and the big problem with these farmers is to provide suitable winter feed for the sheep. The presence of a few acres of good alfalfa here and there over the county proves that the soil is peculiarly fitted for growing alfalfa, and we stressed the importance of growing it at every place of meeting. Some of these soils were tested and found to have no limestone requirement, others had but 500 pounds per acre and some had two and one-half tons, but the lime in every instance is near at hand. One farmer was about to apply two tons of lime per acre and the county agent tested his soil and found it needed no lime. The county agent said this was more money than his family will pay for the support of the county agent for the next fifty years. Our next meeting was held at Brandywine and we were somewhat disappointed in the attendance, but not in the quality of the crowd. The farmers listened with mark-

Sugar Grove was our next place of meeting and but for the fact that some farmers held the hall would have been held by the people. As it was we had a good crowd and I never saw the interest better. At the conclusion of the first session the county agent announced that he was prepared to test soils for acidity and if farmers would bring samples of their soils he would test them. I have never seen so many samples brought to a meeting as were brought after dinner, all of which the county agent tested. This alone was worth much more to the farmers than their time on the farm would have been worth that afternoon. This community has built a community hall and bought musical instruments and a band has been organized through the efforts of Mr. Johnson, who is their director. These people are proud of their band and their hall and they have a right to be.

A drive of thirty miles or more brought us to Dry Run in the western part of the county, where we met a group of farmers who were interested in sheep and the growing of something to feed them through the winter. A round-table was conducted both before and after noon and at night we discussed the subject of "Community Betterment". A meeting had been scheduled for Franklin on Monday and a group of farmers met us in the theater building where we spent more than two hours answering questions and discussing questions pertaining to Pendleton county agriculture.

All the time I had been in the county Mr. McFarland had been acting very queer. He met farmers quite frequently, but would always ask them for a private conference. I did not see why I should be excluded every time. On Monday evening the county agent asked me not to eat supper until he came down to eat with me. Farmers from different parts of the county began to come to the hotel and my suspicions were aroused, and ere long it dawned on me that a banquet was going to be served. Covers were laid for fifty-four guests. Mr. Stanley Hodges served as toastmaster to the delight of all the guests. Speeches were made by D. W. McFarland, County Agent J. G. Mumau, Senator B. H. Hiner and

The children in this picture are all grandchildren of J. T. Alley, Mingo county, W. Va. They represent three families. J. W. ALLEN.

Why let your fall housecleaning be a burdensome, backbreaking job? You can save lots of work and time if you have the right tools and things to help you with the work. Whether you need just a new mop pail or a fine vacuum cleaner, you can be sure of getting the most helpful housecleaning tools at your local "Farm Service" Hardware Store. We have searched the markets for things that will help you; good, practical ones that will give you the best service, and you know that we are always glad to show them to you. Get your new dustless mop, step ladder, rubber window wiper, sponges, furniture polishes, and such things, at our "tag" store.

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the writer talked a little while reviewing the progress agriculture has made in West Virginia during the last quarter of a century. A story is told of a certain king whose subjects were wont to praise him very much. For fear he might get the big head or become puffed up he employed a servant who was to walk behind him during all his wakeful hours and whisper in his ears: "Thou art a man. Thou art a man." I feel I will have to employ such a one if my good friends continue to say such nice things about me. These kind words are greatly appreciated even though I do not merit them.

Tuesday morning, August 28, found us at the Mouth of Seneca under the rocks that tower 900 feet toward the heavens and surrounded by a lot of good friends whom we have known for 25 years and whom we love. Never have I enjoyed round-table talks more. At the end of two hours we recessed when the good ladies spread a bountiful dinner of which we all partook very freely. At one after noon the round-table was resumed and continued until two-thirty when we had to take our leave from these good people. In years to come I may forget many of the occurrences of this trip, but I shall never forget the three hours I spent with this group of farmers nor shall I ever forget the earnestness manifested by them.

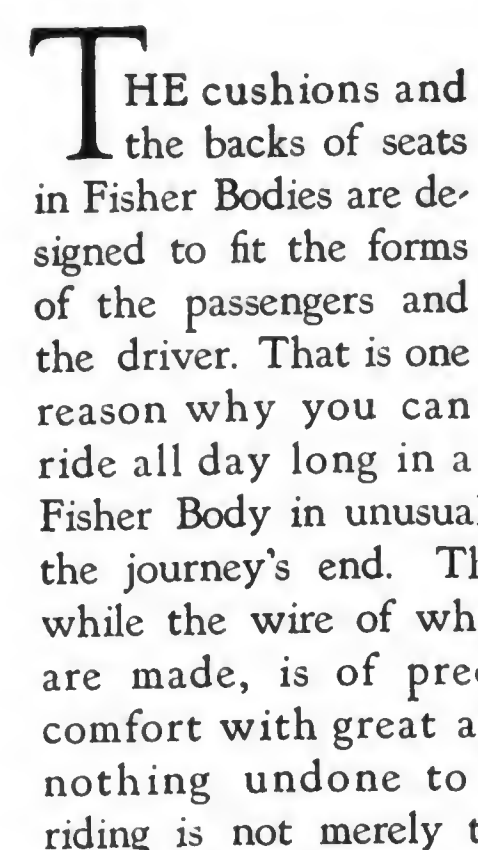
I have spent eight days in the county and the county agent has put in more than 16 hours each day. If the farmers of Pendleton county are not helped by the county agent it will not be his fault. I heard from the farmers many words of commendation about his work. Pendleton county farmers need to be better organized and they need to support the 4-H Club work more loyally.

Twenty-five years ago I attended a great many teachers' institutes. It was my good pleasure to speak before the Teachers' Institute at Franklin on Monday. I have never had better attention. I tried to interest the teachers in the 4-H Club work. If they do not back up the county agent the coming winter in his efforts to organize the boys and girls of their county then this scribble is no prophet.


Vine Moulding—A reader who has been a sign of the vine says: "I have been a reader of your valuable paper for 40 years and I have received a great deal of valuable information from the advice which your editors have given. A number of farmers in this community have been troubled with a vine which spreads very rapidly in the fields. This vine has roots about as thick as a lead pencil which mat together and produce a vine which covers the ground. If these roots are broken apart by plowing they produce as many new plants as there were parts to the old root. The plant thrives in good soil and the roots which are near manure will grow into the manure and decayed vegetation. The flower of the vine resembles a morning glory in bloom and is pure white. The vine seems able to branch off through any one of its many joints."

There are many points of resemblance very much what we call wild morning glory growing on Woodbine Farm. We have two such plants here. The other we call wild sweet potato. The roots of the latter are much larger than those described by our correspondent. The only way I could suggest for killing them, if the land is cultivated, is to keep hogs enough with no rinks in their noses to root the ground all up. Artichokes are often eradicated in the same way. I notice if this ground is given to grass and a good soil is secured no vines are to be found. I am wondering whether if the land was kept in grass for a few years and kept free of any kind of plants would not the roots and branches of any of our readers have a remedy they will please report it.

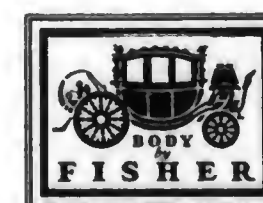
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Livestock Notes

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The Sheet Anchor

AN English agricultural authority, on reviewing conditions which have lowered the livestock population of that country, says that sheep are still the sheet-anchor of the farmer. They offer promising returns at present prices and "with no other class of livestock do prices keep more stable than with sheep." Sheepmen in this country will hardly say that the latter statement agrees with their experiences, if they have been in the business a long time, but they will generally admit that in a life time of farming sheep will give a good account of themselves. As a permanent feature on Pennsylvania farms sheep will pay if the farmer can make them pay. We do not regard sheep as the sheet-anchor of our farming, but we might be better off if we did. Failures with sheep in this state are more often due to neglect than to poor prices, and the man who does not "have a way with sheep" will do well to avoid them, while the one who can keep them right will find a small flock a big asset. C. A. D.

Gains at Breeding Time

Most experienced sheepmen recognize the advantages of having ewes on the upgrade at breeding time. Ewes which are gaining in weight at the time they are bred usually produce more and better lambs than if they are in only ordinary condition. Some farmers claim that this flushing of sheep in the fall tends to increase the number of twin lambs, which may be a good thing if the ewe is able to feed them, but one good lamb is worth more than two poor ones. Some evidence that the gains from flushing are not imaginary is furnished by the United States Department of Agriculture, which states that in six years of experimental work the Bureau of Animal Industry found an average of 187 more lambs per 1,000 ewes as a result of flushing. Farmers who have not been successful in getting a good lamb crop would do well to consider a little extra grain for the ewes before they are bred and see if it will not pay in next spring's results. H. B. R.

Black Sheep

So firm has the "black sheep" tradition been established that we accept it without question of its beginning or reason. That this shady reputation is more or less deserved is the opinion of a geneticist who has looked into the matter and reports that black sheep, horned sheep and other "throwbacks" are evidences of "recessive factors" in the family which occasionally crop out. The only way to eliminate these factors is not to breed the "throwbacks." "These defects or disqualifications are due to recessive factors that have been carried along for generation after generation in apparently normal animals used as parent stock," he says, which is com-

mon knowledge dignified by scientific terms. By breeding to females that carry recessive factors prospective ewes may be tested, it is said, since the appearance or non-appearance of recessive factors in the offspring will determine whether the sire carries these factors.

Length of Breeding Season

Experiments at the West Virginia Experiment Station indicate that a breeding season of about six weeks gives better results than either a longer or a shorter time. In one test 120 ewes, divided in four lots, were all bred during a six-week period. One hundred and forty lambs were dropped, 48 from the first two weeks of breeding, 81 from the second two weeks and 11 from the last two weeks. One advantage in restricting the breeding period to six weeks is that the lambs will be of more uniform size when sold than if the breeding extends over a longer time.

Cull Ewes

Old, decrepit, broken-mouth ewes are given the cold shoulder when prices are low, since it may hardly pay to keep the best, but when prices are fair to high there is a temptation to nurse these old toddlers along and get another crop of lambs. The practice makes more disappointments than profit. Where one has lots of time and likes to work around sheep he may keep worn-out ewes by themselves and bring them through the winter alive, but under average conditions they will "pass out" before grass comes. Under best care they produce inferior lambs and as a rule are more trouble than they are worth. The profitable flock is the one kept at a high standard by culling, which takes out the low wool and low lamb producers as well as those which have served their time. The time to do this culling is before winter winds and snow do it for us. JOHN DOANE.

To Fertilize Sheep Pasture

Experiments are to be conducted in Australia to test the value of top-dressing pastures in relation to improvement of wool fiber. The pastures will be fenced in plots, each top-dressed with various manures and the wool produced there tested for its true qualities and value. That the nature of the soil has an influence on quality of wool is quite generally recognized in Pennsylvania and West Virginia, where some of the best wool in the world is produced, it is supposed partly because of the limestone soil. But the idea of fertilizing sheep pastures is new to us who have always thought of sheep as adding to fertility. However, more attention to pasture fertility must come in this section, and if there is any connection between the kind of fertilizer and the quality of wool, or mutton, we should be glad to know it. We wonder



Grade Flock on Farm of G. H. Yentzer, Potter County, Pa.

if sheepmen in this territory have observed such relationship. R. B. B.

Mules in Kansas

THERE seems to be a considerable increase in interest in horses in our part of the country. Mules are worth considerably more at sales, both public and private, than they were a year ago, and fewer are offered. One reason for this is that southern buyers have been busy buying all kinds of mules and sending them South. The result is that good teams of size and well broken command a good price and are readily snapped up when offered.

I have always held to the idea that the best arrangement would be the use of both animal and mechanical farm power. There are getting to be so many belt jobs for the tractors on up-to-date farms that on many where both tractors and horses are maintained the



A Good Type of Jack

field work for the tractor is of secondary importance. The tractor is an ideal form of movable belt power. One prominent farmer in the beautiful valley of the Blue River states that the mules on his farm are always used if possible for field work and the tractor used for the most part for belt service. There are times especially in hot weather when the horses even with a good driver suffer from heat and the tractor proves its worth and comes into its own. That spares the horses the most grueling part of the farm labor.

I have found in my travels over thirty Kansas counties that there is a general waking up of farmers to the necessity of replacement of the farm horses, and it is safe to assume that stallions and jacks will have a better patronage than in the past few years. Good farm horses are hard to find and it seems that all the farm mares are of advanced age. I am enclosing a picture of one of our good Kansas jacks. This jack I consider an excellent animal and he has always done a good business for his owner. While our neighbor state Missouri has always been rated as a great mule producing state, we are raising and selling some mighty good mules in Kansas, and the mule buyers are taking them out in carloads. In the past few weeks many loads have been sold to buyers in Missouri. DAVID GRAY.

Cheap Production

Pork in Guam may be produced at \$3.50 per 100 pounds, says the Department of Agriculture in reporting tests on this subject. The feeds used were coconut meal or fresh cocoanuts. However, we are not in Guam, which is in the middle of the Pacific Ocean, and hence have no cocoanuts to feed hogs, so must depend on corn and other plain feeds. These have little to recommend them other than the fact that they are available, dependable and have made possible the development of a swine industry surpassing that of any

other country. Most makeshifts, substitutes and fancy feeds are valuable chiefly in the lesson their use teaches, which is to stick to the standbys. R. B. STRUM.

Source of Cholera Infection

The denizens of the swine world never ask for temporary relief from their regular duties. Give them suitable quarters and proper feed and they devote their entire time and energy to preparing hams, pork chops and other choice tidbits of pork for the lovers of this delectable food. On the contrary, that dread disease of swine hog cholera would go on an extended vacation and never return if it were permitted to do so by those responsible for the care and the management of swine. Instead of keeping infected swine under strict quarantine until the disease has abated, it is a common practice to ship such



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National Swine Show

THE thirteenth annual National Swine Show was held in Peoria, Ill., last week, it being the eighth year there. The show was held in the city of Peoria, Ill., and was the largest and best ever held in the city. The show was held in the city of Peoria, Ill., and was the largest and best ever held in the city.

Officials are not marking time, however, in planning for the next show and have decided to take the matter up at once with interests at East St. Louis with a view of obtaining their support and a location there. It is believed that a deal might be effected to hold the show at the same time the National Dairy Show is to convene. An objection to this is that the dairy show being in October is too late. As St. Louis is building fine quarters for the dairy show it looks like a good place to try to get support for a swine show.

Judging Contests

Judging contests by teams from agricultural colleges and individual club boys were features of the first day. The team from the Illinois College of Agriculture was winner this year after being the runner-up the three previous years. It is the first time the team has won here and its success was gratifying to those who have followed the efforts of the College animal husbandry men to place the institution in step with other colleges in the line of activity. The team was coached by Dr. W. E. Carroll and Prof. J. L. Edwards and consisted of boys exclusively from farms in the state where commercial livestock raising and feeding is a major enterprise. The team from Nebraska won second, having been a winner several times of late under the able coaching of Prof. Derrick. The Ohio team came in third, being coached by Prof. J. S. Coffey, Purdue University, was fourth. The team from the University of Wisconsin was fifth. The team from the University of Illinois was sixth. The team from the University of Michigan was seventh. The team from the University of California was eighth. The team from the University of Texas was ninth. The team from the University of Pennsylvania was tenth. The team from the University of Maryland was eleventh. The team from the University of Delaware was twelfth. The team from the University of North Carolina was thirteenth. The team from the University of South Carolina was fourteenth. The team from the University of Georgia was fifteenth. The team from the University of Florida was sixteenth. The team from the University of Alabama was seventeenth. The team from the University of Mississippi was eighteenth. The team from the University of Louisiana was nineteenth. The team from the University of Arkansas was twentieth. The team from the University of Missouri was twenty-first. The team from the University of Iowa was twenty-second. The team from the University of Wisconsin was twenty-third. The team from the University of Illinois was twenty-fourth. The team from the University of Michigan was twenty-fifth. The team from the University of California was twenty-sixth. The team from the University of Texas was twenty-seventh. The team from the University of Pennsylvania was twenty-eighth. The team from the University of Maryland was twenty-ninth. The team from the University of Delaware was thirtieth. The team from the University of North Carolina was thirty-first. The team from the University of South Carolina was thirty-second. The team from the University of Georgia was thirty-third. The team from the University of Florida was thirty-fourth. The team from the University of Alabama was thirty-fifth. The team from the University of Mississippi was thirty-sixth. The team from the University of Louisiana was thirty-seventh. The team from the University of Arkansas was thirty-eighth. The team from the University of Missouri was thirty-ninth. 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The team from the University of Alabama was eighty-ninth. The team from the University of Mississippi was ninetieth. The team from the University of Louisiana was ninety-first. The team from the University of Arkansas was ninety-second. The team from the University of Missouri was ninety-third. The team from the University of Iowa was ninety-fourth. The team from the University of Wisconsin was ninety-fifth. The team from the University of Illinois was ninety-sixth. The team from the University of Michigan was ninety-seventh. The team from the University of California was ninety-eighth. The team from the University of Texas was ninety-ninth. The team from the University of Pennsylvania was one hundredth.

Weights

The aged Duroc-Jersey winning boar averaged 361. The Spotted Poland-China, 322. The Chester Whites 794. Hampshire 610. Berkshire (only four) 795. and the two bacon breeds trailing. Weights of other ages in both sexes in the several breeds bore about the same ratio as the aged hogs. It has been about the same also in past shows.

What one meets with in modern Poland-China type was illustrated in the case of the junior yearling boar shown by A. B. Johnson, an expert fitter of Nebraska. This boar, The Torch, weighed 768 pounds, being a March 6, 1927, farrowed pig. He stood about waist high to the average man and was so narrow in the chest that the front legs at the body were only the space of a man's palm apart. It gave him the appearance of an interfering horse. He had hardly any fore shoulders, in fact he was wider across the hips than anywhere in the body. This almost reverses the old fashioned heavy-shouldered hog. From a side view this hog had as beautiful an outline as could be painted, and he was one of the most popular hogs in the show. He also had as smooth a side as any bacon hog. The grand champion sow, Champion Lady of the Wonderland herd, and a winner of championships for several years like her mate, New Hope, was something of the same type as the Johnson hog, too, with arched back, long and a neat underline.

Prof. H. H. Kildre of Iowa State College tied the Poland-Chinas. His choice for junior champion boar was a smooth, long pig shown by a club boy of Iowa, Marvin Conrad. The same boy won junior champion sow on a similar pig. The Wonderland herd was the only one entered from east of Illinois.

Berkshires and Chester Whites

Most of the Berkshires came from the East, Clemson College of South Carolina being a heavy winner as in years past, showing a herd mostly if not all of their own breeding. They stood first and second in get of sire on entries by Clemson. Revelation and Great Eliminator, by senior and grand champion boar of Clemson Monarch and all sow champion, ships, same type as the Johnson hog, too, with the Duroc had but two. Aged classes ran from four in the Berkshires to eleven in the Poland-Chinas. The pig classes ranged from a dozen to thirty. About the same numbers applied to the sow end of the breeds.

Poland-Chinas

The Poland-Chinas made one of their best shows in recent years. The dissemination over type is now mostly a thing of the past. The type as seen now at the show is what might be called a half-way place between the extreme "mastodon" and the thick medium type. The boars show to

HORTICULTURE AND TRUCK CROPS

Everbearing Strawberries

By S. W. FLETCHER

THIS is a word of praise for the Mastodon strawberry, one of the best of the everbearing sorts for the home garden. It is hazardous to recommend varieties of any kind of fruit for other climates and cultural conditions than your own—and most of all, varieties of the strawberry—yet the Mastodon is so outstanding, as grown in my garden, that I am tempted to cast discretion to the winds.

It is only fair in quality but has the surpassing merit of being prolific of both plants and fruit, even in a comparatively dry season. Most of the so-called everbearers produce very little fruit during the late summer and autumn unless the soil is rich and the moisture supply is constant and abundant. Mastodon is a good plant maker, comparatively free from disease, of fair size and attractive appearance. A row twenty feet long, set last spring, now gives us a few saucerfuls of nice berries every other day. It does this from the first of August until October.

The plants from these spring-set plants were picked off until about July first, in order to favor runner production. Next spring this row of everbearers will yield almost as heavily as the adjacent row of Howard 17. It will then be turned under; it seldom pays to fruit the everbearers more than one year, although this frequently is desirable in the spring bearing sorts. A new bed should be set each spring.

In the Home Garden

In the home garden it pays to layer or bed the runners of all varieties by hand as soon as they appear, spacing them four to six inches apart. This seldom is profitable commercially. When rudimentary roots appear on the runner tips, insert them in the soil, or merely lay a stone or clod on the runner end to keep it from being moved. These runners will fruit in the autumn; the size of the fall crop depends largely on the number of strong runner plants.

A hedged row about fifteen inches wide, with runner plants about five inches apart, usually will give maximum production with either the everbearers or the ordinary sorts. Both profit by careful mulching, applied two or three inches deep in November. Commercially, clean wheat or oat straw is preferred; in the home garden, lawn clippings or leaves may be used, but preferably not oak or horse-chestnut leaves. Straw mulch is the most common and the least desirable. It raises a crop of weeds in the bed the following spring, and sometimes it smothers the plants over winter. Mulch should be used for strawberries before the plants are set, as a soil builder, not a mulch.

Howard 17

A fit companion variety for Mastodon in the home garden is Howard 17—ironically called Premier. It is remarkable how quickly this variety has become dominant in Pennsylvania and other northeastern states. It is almost as cosmopolitan as the Wilson, Sharpless and Crescent were in their days, fifty to seventy-five years ago. Vigor of plant growth, freedom from disease and heavy production recommend it to the commercial grower; its long blossoming and fruiting season is an advantage in the home garden. It has largely superseded Dunlap, Chesapeake, New York, Big Joe and a host of lesser sorts. In central Pennsylvania, Howard 17 usually bears

was shown during the Pan-American Exposition at Buffalo, in 1901. It was found by Samuel Cooper of Delevan, N. Y., in 1898, in a row of Bismark. Probably it was a chance seedling. The Progressive, produced in 1908 by Harlowe Rockhill of Conrad, Iowa, was the most popular everbearing variety for many years and is still grown. It was the result of a cross between Pan-American and Dunlap. It is apt to be a poor plant-maker and is rather fickle.

While on the Pacific Coast last year, I saw large fields of the everbearing varieties produced by Albert F. Etter, of Etnersburg, Calif. These are extremely prolific as grown in the Pacific states, many of the individual hill plants producing over a quart each, yet they have not been successful in the East.

Contrary to the alluring prospects unfolded by certain plant sellers, the everbearers have not been profitable commercially, except in very few cases. They do not yield heavily enough to

judicious use of commercial fertilizers, lime of whatever form is least expensive locally, and a green manure at every opportunity. And an opportunity for a green manural crop can be found almost every year when there is sufficient determination to find and use such opportunity.

How much rye should be sown per acre as a green manure? Opinions vary but it does not pay to skimp on seed. I have come to use two bushels per acre throughout September, two and a half bushels during the first half of October and after that three bushels per acre. This practice is based on the observation that the earlier sowings have more time to become established, whereas the later sowings must be heavier to cover the ground. I also believe extremely late-sown rye suffers less from heaving when the stand is rather thick.

Are you satisfied with your farm or do you envy some one his broad acres of river bottom or another his gently sloping southern exposure? Many times I have thought how much more pleasant and less expensive it would be to garden in a fine sandy loam.

The other day several gardeners situated on some of the most beautiful bottom land along the Susquehanna visited me. When they were about to leave I said, "Well, I guess you gentlemen would not think much of trucking such land as I have with some places heavy and the light places nearly always stony?"

I was surprised at the reply. "We would be mighty glad to be where you are. It is no fun to be flooded out every five years or so."

After all it is easy to overlook one's own particular advantages or opportunities. I have a friend who owns half a hundred acres of veritable made-to-order trucking land, but he is hundreds of miles from market and in the heart of an overdeveloped, intensively competitive vegetable shipping district. Few Pennsylvania vegetable gardeners enjoy the inviting sandy loams or mucks of the great specialized vegetable growing regions, but we are in position to realize on the opportunities which go with proximity to markets. And with intelligent methods almost any well-drained soil can be made into garden land of such fertility that there will be no great handicap on this account.

Gas for Peach Tree Borer

SEPTEMBER and early October is the time to gas the peach tree borer with paradichlorobenzene, called PDB for short. It seems to me I have noticed more than the usual amount of borer trouble this summer, especially in orchards that have had spasmodic treatment for borers or where the work has been done in the old-fashioned way with a knife and wire prod.

The gas treatment is very effective and when carried out every year at this time will prevent infestations of the borers and add many years of life to the peach orchard. When first introduced the gas was recommended only for trees three years old and older, but in recent years peach growers have been using it on trees of all ages in the orchard and I have yet to see an injury where the chemical was properly applied.

Early fall is the best time to make the application, for this kills the borers while young after all eggs for the year are hatched. In preparing trees for treatment clear away the trash about the base of the tree for a distance of six inches or more. Do not dig up the soil more than necessary. If there is very much exudation of gum this



Green Manure Crop of Oats (Four Bushels per Acre) Following Early Truck. Will Be Fall Plowed for Early Spring Plantings.

crop from this bed ripened in August and sold for fifty cents a quart, which gave him a nice profit. It is not necessary, now, to mulch the strawberry bed with ice to get berries in August.

Pioneer Everbearers

The first really successful everbearing sort was the Pan-American, which

Six Years of Soil Building

By GILBERT S. WATTS

WHAT a satisfaction it is to see a desperately poor soil become more productive year by year until really first-class crops can be grown.

This week we have been pulling some of the most beautiful carrots I have ever raised. As I work with them, or look at them when displayed for sale, I scarcely can realize that they are from a field which six years ago appeared to be hopeless.

At the beginning that field was in "sod", at least it was called a sod, but bare ground shone through almost everywhere. I plowed this, limed, fertilized and planted it with tomatoes, sweet corn and beans. A very dry summer followed and with the soil so woefully lacking in organic matter the returns were extremely disappointing. The area was plowed again, however, and rye was sown at the rate of three bushels per acre. In the spring this was plowed down and truck crops were planted again.

To make the story short a truck crop was grown each of the six years except one and in that year August sown sweet clover was allowed to grow all the following summer. The truck crops always were followed by a green manure, oats, sweet clover or rye. Each year reasonable applications of commercial fertilizers have been made and in addition to the initial application of ground limestone at the rate of two tons per acre, one ton per acre of this cheap and fully effective form of lime was harrowed in just before planting the sweet clover several years ago. Most significant of all this piece of land has been built up without a single pound of stable manure. In addition to the fine crop of carrots mentioned, thrifty eggplants, Lima beans, lettuce and spinach all attest the hospitable growing conditions that now prevail.

There is abundant proof, of which the present example is but one instance, that trucking soils can be cropped once every year and at the same time can be built up in fertility through the

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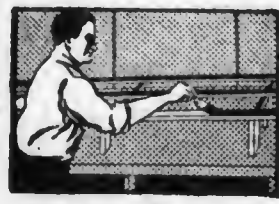
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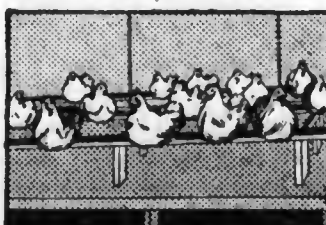
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should be scraped away. Make the soil about the trunk level with the highest point at which gum is found to exude and if necessary bring in extra dirt so as to make the soil this height, for the gas is heavier than air and sinks and the crystals of PDB should be placed above the holes where borers are.

Place the PDB in a narrow continuous band around the trunk, making the band about an inch wide and keeping it about two inches away from the bark on the inner side. Use from one-fourth to one-third ounce per tree the first year and gradually step up the application on older trees. Around three-fourths of an ounce can be used on a three or a four-year-old tree and about an ounce on the average mature tree. For larger trees a little more can be used, but it is not advised to use more than one and one-half ounces on large trees with extra large trunks.

Then place several shovelfuls of clean soil carefully against the tree trunk and allow it to fall out and over the band of PDB. The chemical should be covered at least three inches deep with a cone of soil. Then compact the cone firm with the back of the shovel. The gas works best in warm dry soil.

For young trees remove the cone and air the trees in about three weeks and for older trees within about six weeks. It is always recommended to remove the cone after the treatment is effected, as if this is not done the borers will work higher next year and make it more difficult to carry out the treatment.

The chemical is sold by most firms dealing in spray materials and chemicals for the orchardist but is seldom found in local drug stores. F. H. B.

When to Pick Apples

THE time for picking apples can be determined by several factors such as color, ease of removal from the spur, firmness and freedom from various forms of internal breakdown that may develop when left too long on the tree. The time must also be gauged by the time that losses may start from dropping, as with many varieties the loss from dropping can be heavy if the fruit is allowed to hang too long.

With the Baldwin the ease of picking is perhaps the best test. This should be considered in connection with color and getting the picking done before any serious dropping occurs. This same guide also holds with McIntosh.

With Grimes the fruit can be picked when the ground color of the apple begins to turn greenish yellow. This variety can be yellowed up in crates or baskets in the packing shed to have it in best eating condition when placed on the market. Heavy losses from dropping result when Grimes are allowed to hang on the tree until they are full yellow.

With Jonathan high color is wanted and for local market the fruit can hang longer to get this color than where the fruit is shipped. With some locations Jonathan will hang on the tree too long before dropping and may develop internal breakdown and spot.

With Rome and Stayman a light greenish yellow ground color is wanted with as much bright overlying color as possible to get on the location. These varieties can usually stand two pickings, picking off the tops and outside of the trees first and selecting for size and color and later going back and getting the rest of the fruit after it has made further improvement in size and color. F. H. B.

Snails

R. H.—"About the time that I set out my cabbage, pepper and tomato plants small snails came out of the ground during the night or early in the morning and ate off the stems and leaves of my plants. Would be very

much pleased to receive information on how to get rid of these small snails."

A writer for The Stockman recommends a unique plan which I think is well worth trying in the home garden. Cut potatoes lengthwise in halves, hollow out the pieces and place them upside down along the rows of plants that are being injured. Snails like to feed on potatoes and they also seek cover and protection during the day in these potato huts. It is then a simple matter to visit the traps daily and collect and destroy the snails. Another plan used sometimes is to place shingles or boards through the garden and sprinkle air slaked lime on the pests that hide under the boards. R. L. W.

Market Gardening

WE had a real feast at our home today of Golden Bantam sweet corn, Matchum tomatoes and Dwarf Horticultural beans—all fresh from our home garden. My! Aren't they good. A member of the home circle remarked: "The beans are so filling." Indeed they are, and after all, that is the purpose of food—to fill and nourish. The possibilities of a home garden are unlimited.

It is real fun to pick the tomatoes from plants which have been tied to stakes. The fruits are always evenly colored, clean and free from blemishes. Stakes should be more generally used in home gardens and perhaps in commercial plantings. Undoubtedly the volume of very early fruit may be materially increased by staking a good early variety like Bonny Best. A common practice is to remove all side or lateral branches, thus training to a single stem.

The Mexican bean beetle is causing heavy losses in some sections. Dusting with a mixture of one pound of calcium arsenate and ten pounds of hydrated lime is recommended as a control measure.

Lack of care in properly adjusting nozzles when spraying potatoes has resulted in inefficient treatment in some fields. All of the plants should be reached by the spray.

Last week I saw an unusually successful patch of Mastodon (everbearing) strawberries in Clearfield county, Pennsylvania. Not only were the plants fine in appearance (Aug. 22) with their good load of ripe and green berries, but I can also testify to their quality when served with and without sugar and cream. Certainly, there should be many plantings of Mastodon for the home tables, and perhaps favorably-located growers might find them profitable for market.

Black-seeded Simpson is one of the best varieties of lettuce for summer cutting. Few if any varieties stand hot weather so well.

Paper mulching in gardens may become a more general practice. Mulching prevents weed growth on covered areas and raises the soil temperature. Though reports concerning the benefits of mulching are conflicting, there seems to be no doubt about the value of the practice under certain conditions. At any rate, intensive growers should study the whole question and also make limited trials to determine the value of mulching under their own conditions.

The success of a garden depends very largely on its fertility, and the fertility is determined to a great extent by the supply of organic matter in the soil. Every possible means should be employed to increase the soil humus. This may be accomplished by the application of stable manures and the use of cover crops. Rye and oats are especially good crops to sow late in the season. Seed should be used more freely than when the crops are to be harvested. R. L. WATTS.

Poultry Topics

Ducks Bring Me Easiest Money

A FEW years ago I lived on a 95-acre general farm in Maryland, and, although I worked hard and used all the head I had, I didn't seem to make much headway. Finally I decided that this is an age of specialization in the country as well as in the city, so I went in strong for dairying. I found use for lots of elbow grease, but the profits were more encouraging. Then along came that wave of Spanish flu. When that got through with me I wasn't much use on a dairy farm. I sold my 95 acres and bought this 20 acres near the good little trading and market center of Baltimore. One thing about this 20 the owner didn't show me, but it was what sold me. That was a picturesque little stream near the house. The seller didn't know that while I was laid up at home I had been interested in a magazine article on Long Island duck farms. And of course he didn't care to insult my intelligence by suggesting that I might go into the duck business here in Maryland. But that was the size of it and it answers the question I've been asked by hundreds of visitors here at my farm, "How did you ever happen to go into duck farming?"

A Start with Pekins

When I got into the heart of that article on the Long Islanders I was interested to find they didn't have a thing to make duck raising successful there that I couldn't duplicate. I started with 25 Pekin ducks and proceeded to learn just how much I didn't know about raising them. I had seen too many rosy dreams go up in smoke to risk my chance of bread and butter on what some folks away off on Long Island had accomplished. I did know something about chickens, so I reinforced my duck enthusiasm with 500 White Leghorns.

Results verified my confidence in the "quackers." Today I have 200 laying ducks here and over 500 little fellows growing rapidly in the direction of some well-loaded city table. And duck raising, like everything else, was a tough proposition last spring when you recall the cold winds and the late frosts we had all over the country.

Gradually we've made this a real duck farm, although we still have chickens running about. I believe every duck raiser will make more money if he will divide interest with his favorite breed of chickens. You can't make the money with chickens that you can with ducks, but if you get a bad cold on one line you have a chance to hit right on the other. Ducks have made me the easiest money I've ever made, simply because they are not bothered so much with diseases which knock such a hole in chicken profit. They don't have white diarrhea. Earning accidents a duckling hatched is a duckling marketed. Our loss for some years past has never exceeded two per cent. We use the same equipment in one duck-house as for chickens. We have big incubators and coal brooders raising about 80 per cent as many little ducks as the chicken capacity.

Feeds and Markets

We start the ducklings off with a commercial starting feed, changing to a home-mixed feed when they are two weeks old. Lettuce and sprouted oats make up a "greens" ration. We always give the baby ducks all the water they wish to drink, but we never let them go to the creek to swim with their elders. I found early in the game that it was mighty hard to fatten a

swimming duck and the meat is nearly always tough and stringy.

I market my ducks when they are ten weeks old and weigh about five pounds. Unless you sell them about that age they will lose their feathers and will also begin to lose weight. You have another six weeks' feed bill to face to get them back to the weight if you let the golden time for marketing pass.

The feather income is quite an item. I start picking them at twelve weeks and repeat the picking every six weeks during the season. It never pays to pick a duck too soon before marketing, however, since the city buyer will swear that the fowl is poor. I imagine this is true in all markets and I know it is in Baltimore, where I ship all mine alive.

I never have had any trouble raising my ducks in the same yard with the chickens. I have them enclosed by an 18-inch fence. Soon the chickens can fly out on free range, but the ducklings will stay in until they are ready to ship.

Hardy Fowls

There's one nice thing about duck raising in a disagreeable, frigid sort of spring like the last one. They need the artificial brooder heat only about four weeks. Then we place them in nice warm houses and we never have to worry about a little crowding. A drop in temperature that would kill a whole room full of baby chicks will never cause a squawk from ducklings. Three points I watch close in the breeding of ducks. These are vitality, size and egg production. We get a flock average of about 135 eggs a year under fair circumstances. The ducks start to lay in January and during March, April and May we figure pretty safely on a 90 per cent egg production. I properly fed a duck will lay all summer.

One common fallacy about duck eggs I've been trying to dispel. People have the notion that duck eggs are not good to eat on account of a strong taste. There is no richer or more palatable egg in the world than a duck egg when the duck has a chance. If a strong flavor is present it is a result of bad feeding. Feed a chicken hen crawfish and garbage and allow her to lay in the mud and see what kind of egg you get! We started in this business to sell ducks for table use, with feather sales as a side line. READER.

Questions and Answers

Paralysis

G. W.—"Will you kindly tell me what is wrong with my chickens? I have a rooster and a young pullet that seem to get weak at the legs or something. They can walk a little, but sort of stagger until they sink clear to the ground and lie there as if dead. If we scare them they rise up, but sink slowly back to the same position again. Their combs are kind of purple and they neither eat nor drink."

There are several causes of paralysis in poultry. Tuberculosis, coccidiosis, intestinal parasites such as round and tape worms, leucemia and other diseases are often responsible for paralysis. It is claimed by some authorities that fowl paralysis, as we find it in some sections, is a distinct disease, but the organism which causes the disease has not been discovered. Under most conditions, I believe, fowl paralysis can be attributed either to coccidiosis or to intestinal parasites. I know of nothing which you can do at the present time



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"Nothing but bread and potatoes!" she said to herself with a feeling of sadness in her heart. "Poor people!" And then she laughed, for bread and potatoes was all she had for her meal and

all she had had for the whole week at noon when alone with her work. "Isn't this just like a woman?" she said as she rose to fish another potato from the kettle. HILDA RICHMOND.

The Portion of the Old

It is difficult, if not impossible, for us to sense the real nature of an experience until we have met it—a fact which brings many troubles and trials which get no sympathy of an understanding kind. But it is the lack of understanding, not deliberate unkindness, which brings this about. It seems the tendency of the able-bodied to assign elderly people to a state of existence away from the main affairs of life, to hasten entrance upon the chimney-corner part, which they think the aged must play. It may be that mother feels able to manage a short trip to town, but when she proposes it she is met with shocked surprise that she should dream of such a thing. If she wishes to have a change made in the furnishings or arrangement of the house she may be put off with vague objections, and so little by little she sees she is expected to relinquish her place in more important affairs. This realization may hurt mother cruelly; a little sacrifice, a little thought, would make it possible for her to carry on at least a part of the activities she enjoyed when stronger. Not to be supplanted but to be relieved of heavy burdens is her need.

Many older people in dependent circumstances pitifully accept the indifferent treatment of their relatives as an indication that help is unwillingly given, and, feeling this, decline a part in pleasure. If the benefactor in such a case really feels that mother or father has a right to the help supplied, as no doubt is true, he will act like it, making the recipients forget that they are needy. It takes cheery natures rather than patience to help the aged through these last years. An old lady who is not able to leave her house in bad weather told me the other day that one of her grandsons had said he was going to take her South next winter.

The Brighter Outlook

"I told him I'd go if I was living," she said, "and he said, 'Oh, don't say that, grandma, I'm tired hearing you talk that way. I'm going to take you.'" It had done the poor woman good to have her gloomy outlook disclaimed and the hope of a coming pleasure made to seem right and reasonable; so often there is nothing pleasant for these old people to look forward to. Now the fact was that her family had heard her say "... if I'm living" many times and had accepted her words as oracular. It was a mistake and I believe it is generally a mistake to allow the old to brood in this manner. Having an interest and keeping a proper outlook on life is the salvation of old age. Looking forward to this time which the Psalmist calls one of labor and sorrow, it would be well for us to determine to keep up our interests; to have something which we can do, meaning something which we shall like to do, for even a feeble, old grandmother can be supplied with plenty of odd tasks. There is an old saying, Irish probably, which assumes this truth of the usefulness of grandmothers and the lack of occupation suitable for an old man: "An old woman is a blessing and an old man a blister." If father is infirm or feeble to take cold he must be kept in the house by the fire in winter, and often he seems in the way, certainly there is little he can do. There is a pathos in the situation of such men, who having outlived the days when they were able to have a part in the business around them are waiting now for dissolution. As for the attitude to-

ward them shown by the younger generation, it should not be held a hardship that grandfathers ask to be told of family affairs, that they like to advise, or repeat again and again the stories the family has heard so many times. While they live much in the past, these old people retain the sensibilities they possessed when in the thick of events. "Our feelings do not change," says an elderly character in Basil King's "High Hearts," who is represented as wronged by the young

Property Ownership

In spite of the constant advice spoken and written on this subject of the old taking care not to give up claims to property, it happens only too frequently that they do so, usually with unhappy consequences. It is a deplorable fact that relatives often reduce the old to penury by persuading them to sign over property. Perhaps this is done with an honest intent, but as time goes on the victim will possibly feel that by relinquishing rights in property he has lost his importance and become a penniless encumbrance. Those who

know say it is wiser to hold one's means of living even though the management is turned over to another.

It is proper to say in this connection that it is becoming more and more the practice to lay by money for old age. An effort to bring the public to doing so is seen in advertising campaigns of thrift companies, insurance interests, banks and like organizations. Though for their own profit, the facts they put before the public are worth serious acceptance. As suggested in the line of occupational interests for our declining years, laying up means of sustenance is likewise good sense. We shall want something to do and means for meeting expenses. It is interesting to learn, through a report of the National Civic Federation, that of 14,815 persons over 65 years of age who had been interviewed, only 20 to 25 per cent were dependent on relatives or charity. Though real suffering was found, many of those questioned had ample means. This would indicate a brighter outlook. No one of course can foresee the future nor know what circumstances will affect his advanced years if he lives beyond the time of strength and vigor; but it is the part of wisdom to make what preparation we can for such a time. This is one of two thoughts impelling this communication, the other being that the young and strong should be pleasant, more patient and kinder to the old. OLD CONTRIBUTOR.

Recipes and Requests

Eggless Chocolate Cake

When I find that I must cook without eggs I try to make up at least the iron content missing in the egg, which is one of our chief sources of iron. One tablespoonful of molasses has as much iron in it as the yolk of an egg.

"Best" black cake: One-half cupful of sugar, one-half cupful of molasses, two tablespoonfuls shortening, one teaspoonful soda, three-fourths cupful of sour milk, two tablespoonfuls cocoa, one teaspoonful mixed spices, one and three-fourths cupfuls flour. The batter is slightly thicker than the usual layer cake batter. Sift the soda, sugar, cocoa and flour together twice, with a pinch of salt. Bake in two tins. Fudge icing can be used: One cupful sugar, two tablespoonfuls cocoa, two tablespoonfuls sweet cream cooked till a hard ball forms when dropped in cold water, and then beaten until it begins to stiffen. Add a little cold milk if it hardens before it can be spread on the cake. M. G. F.

Buns

Two cupfuls light bread sponge, one-half cupful of butter, one-half cupful of sugar, one cupful of warm water or milk and water, mix stiff; when light mix down; when light again roll out until about one inch thick. Cut out with a cookie cutter, place in pans so they will not touch. When light bake about one-half hour. These are as nice as baker's buns. Try them. MRS. C. H. REYNOLDS.

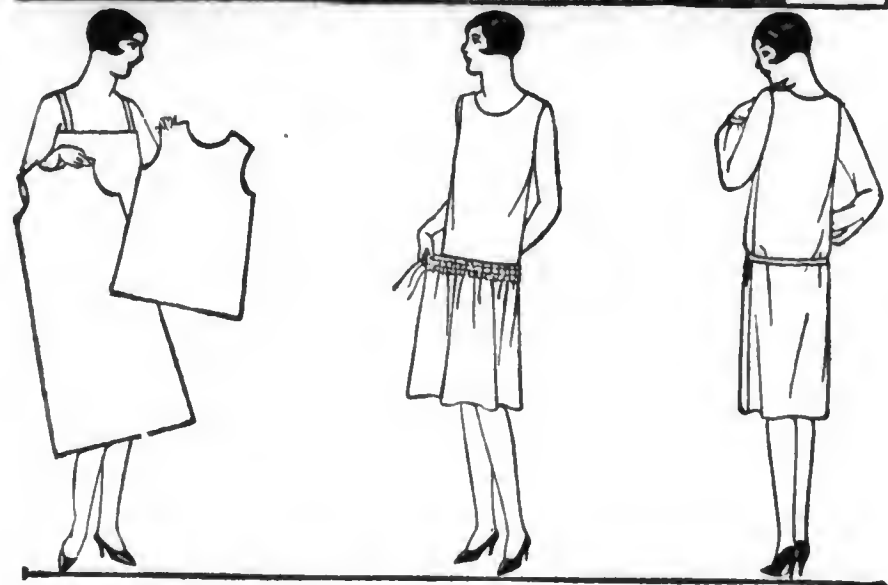
Dried Milk

Whole milk, skim milk, butter milk, cream, malted milk and whey are all being successfully dried on a commercial scale. The latest development, almost within a year, has been the drying of whey and the addition of dry whey to certain types of blended or loaf cheeses. By this practice all of the food solids of milk used in cheese making are conserved for human use. Dehydration, as a means of conserving milk solids and making available for storage and transportation to districts not now supplied with whole milk, is in its infancy. Many peoples, not now familiar with dried milk products, will doubtless learn how to use them in the near future.—Dr. H. E. Van Norman, President American Dry Milk Institute, Inc., Chicago, Ill.

Can you please tell me how to dry prunes so they will be as good and nice as those you buy? MRS. J. S. H.

Please give in your paper a recipe for ripe tomatoes pickled that won't get soft. C. E. L.

Would some one tell how to make candied citron? Also what to put in cider to keep it sweet? MRS. H. AYLER.



Afternoon Frock. Design No. 2858.

Slitting gives the important front fullness to skirt in Design No. 2858. The narrow removable belt creates a bloused suggestion. It is collarless in oval-shape neckline. In violet-purple shade of chiffon with matching grosgrain ribbon, it is simply adorable. Black crepe back satin. Channeled red georgette crepe. Royal blue crepe Roma or printed silk crepe is also chic. It can be made in less time than it would take to shop for a new frock. Back in one piece; front in two sections. The lower section skirted and stitched to upper waist section, after which the side and shoulder seams are closed. Complete instructions with pattern, which comes in sizes 16, 18 years, 36, 38, 40, 42 and 44 inches bust measure. The 36-inch size requires 2½ yards of 40-inch material with 3¾ yards of ribbon. Price 15c in stamps or coin (coin preferred). Our patterns are made by the leading Fashion Designers of New York City and are guaranteed to fit perfectly.

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Gerald Gummo's Chester White Club Pig

Boys' and Girls' Clubs

My Experiences in 4-H Pig Club Work

On May 28, 1926, a pig club was organized and the pigs distributed to sixteen boys in our local community. Eight of the boys got Poland-Chinas and eight Chester Whites. I preferred the Chester White breed and received a gilt weighing fifty pounds of good type from a pure-bred Pennsylvania herd.

At the first meeting of our pig club members we were given instructions for handling and caring for the pigs. I think the information proved to be very profitable to all.

I took a great interest in my pig and spent quite a lot of time with it to get prepared for the round-up. At the round-up I took second place out of the eight Whites. After that I still took a greater interest with my pig. I had her on pasture and a self-feeder. She made an average daily gain of 1.38 pounds for the 135-day feeding period. The lowest daily gain made by a club member was 1.25 pounds and the highest 1.52 pounds.

My sow was in fine shape for farrowing. She had nine pigs for the first litter and raised them all. The second litter she had seven and raised them all. Four of them were sold for breeding purposes. The third litter she farrowed nine pigs and raised eight of them. This broke her 100 per cent record. In all she raised 24 out of 25 pigs or 96 per cent. This also proves that it pays to use the methods suggested by the Pennsylvania State College.

Our local agricultural extension agent has been a great help in giving us information about caring for the pigs and other club projects as well. We now have a calf club in our community with a membership of nine, one being a girl. Any boy or girl who has the privilege to join a club should do so and make use of the information received



Girl Members of the Conneaut Lake Jersey Calf Club. Dorothy Adsit Is Third from Left.

DAVID BASCOM turned in at the lane. Old Rowdy had trotted all the way from town, partly because of horse flies that persisted in hanging where David could not brush them off with the lines, and partly because David was in a hurry. He had great news for Nancy. Joey had a son. It was their first grandchild.

Nancy sat on the porch peeling potatoes. She bent over her task as if she were tired. She looked up at the sound of buggy wheels and came down to meet David.

"Gosh, Mother, we are grandpa and grandma. What do you know about that? Saw Joey at the store. He said it was a boy and we should come and see him."

"Did he say it as if he meant it, David?"

"Of course he meant it. Why, Nancy, what is the matter?"

A hurt look crept into Nancy's eyes and throwing her apron over her head she rushed to the house. She could not talk to David—not just yet. She must consider this stupendous thing alone.

She and David were old-fashioned. They seldom left the farm except on an errand or to go to church, old-fashioned and odd, and no one knew it better than Nancy. Joey had never seemed to mind, and they had been very happy until Joey had gone to college. How hard they had worked to send him there!

While at college he had renewed his acquaintance with the banker's adopted daughter, Katherine McCleary, naturally a warm-hearted Irish girl, but so glossed over with superficialities that one seldom caught a glimpse of the real Katie.

McCleary was a successful business man before he became banker and although many had questioned his business methods he always "got by" with them. A few years previous he had dropped down from somewhere, no one seemed to know much about him. He became a fixture in the business life of the town and almost before people realized what was happening was president of the bank.

His wife was a society beauty ostensibly from New York, arrogant and overbearing, and his home life was none too pleasant. They had no children of their own and adopted Katie. Originally she was a democratic little thing, but she had been early impressed with her exalted position in the community as daughter of the president of the bank.

McCleary's manipulation of the bank's funds became open to suspicion from time to time, and he cast his eye about for some respected local young man as an associate who would stand well with the community, and partly owing to Katie, he settled on Joey Bascom.

Joey's courtship had been a short one and almost before Nancy and David knew what was happening, Joey was gone. Farm routine still continued, David whistled merrily and stamped loudly, trying to make noise enough for two as he came up the back steps, and Nancy smiled through her tears at his enforced cheerfulness.

It would not have been so bad had Joey and his wife driven out of a Sunday as the neighbors' sons did, but they did not, and Joey made only an occasional hurried call. David and Nancy were too proud to acknowledge their hurt and the calls became fewer and shorter. McCleary's had evidently drawn the line at the elder Bascoms.

Nancy had not liked Katherine nor any of the McClearys for that matter. They were overbearing and proud of their money, still, if she were Joey's choice, she had no right to interfere. Nancy blinked bravely to keep back the tears. She would not go to see the baby—never, unless David insisted on it. Anyway, not until Joey asked her to.

KATYDIDS

By
Jessie Jason Rufner

At last old Rowdy was cared for and David came to the house.

"When was the boy born?" asked Nancy casually enough.

"He is a month old, Nancy, a month old today. Katherine is at her folks. They took care of her."

"And Joey is real proud, I suppose? Did you go to see it?"

"N—no," hesitated David, "I—I didn't."

"He didn't ask you to. Is that what you mean, David?"

"N—no, Nancy, he didn't ask me to, and he is all the grandchild I have."

David's voice trembled as he fumbled for his handkerchief. "Are you going down to see it, Nancy?"

"Not till Joey asks me to." Nancy set her chin hard to keep her lips from quivering.

THE matter was dropped and both old people turned to their chores. Nancy put over the potatoes to boil and set the table. She went out and fed the chickens and gathered the eggs listlessly. David finished the milking and separated the milk. After the chores were done he came in and went to bed without lighting the lamp. Nancy soon followed him, only to lie awake and grieve far into the night.

Next morning Aunt Sabina Potter who lived down the road came to the Bascom's with the "County Clarion" in her hand.

"I see you have a grandson," she yelled, holding up her ear trumpet to catch Nancy's answer.

"Yes, I'm grandma," shouted Nancy, struggling to keep back the tears.

"Who does he favor?" persisted Aunt Sabina.

"I haven't seen him yet," replied Nancy at the top of her voice.

"Haven't seen your own grandchild? Joey's boy? Why, Nancy Bascom, what do you mean?"

"Nobody has asked me to, yet," shouted Nancy through the ear trumpet. "I didn't know a thing about it until David came home yesterday. I will not go until they ask me."

"Do tell," shrieked Aunt Sabina. "If that was my grand baby, I'd march right down there and I'll bet I'd see it!"

"I won't go until they ask me," Nancy set her teeth together hard.

"Don't you reckon you have some right to that baby after raising his pa?"

"Not unless they want me to have Joey's more than welcome to all I have done for him." Aunt Sabina went home shaking her head.

That night Nancy sat under the locust trees listening to the katydids. She was thinking how twenty-five years ago she had sat under those same trees with a tiny bundle in her arms. She had sat there a good many nights for Joey had been cross and the house was stifling after days of old-fashioned cooking on the wood stove. Well, that was long ago and Joey was married and gone and had a son of his own.

She remembered how Grandpa Bascom had insisted on naming Joey. She had wanted to call him Glen, but Grandpa had poo-pooed and stoutly maintained the boy's name should be Joseph, named after himself. What if David should insist on naming his grandson? But David would not. He too was hurt.

The katydids were quarreling, as they always had since she came to the old Bascom home to live. "Katy did," "She didn't," "She did—she didn't."

"Yes, she did. She took my son away from me so she did!" Nancy muttered rebelliously. She could almost hear the little boy, Joey, saying sleepily, "Come on in the house, Ma, and put me to bed. The katydids are hollerin'."

What had it amounted to, anyway,

this rearing of Joey? She had been too good to him. They both had for that matter. He was such a dear little tow-headed tike hanging to her apron strings or tagging along after David. She remembered his first pair of blue overalls. What a time she had had keeping matches out of those small pockets, for Joey would persist in imitating David and lighting matches on the seat of his breeches like David did. She remembered his tiny hoe and watering can and how he worked in the garden, sometimes hoeing where he should not. Dear little Joey! A reminiscent smile crept to her lips. They had stayed home and scrimped and saved and sent him to college. They had been so proud of him, the only one left of three. But now she sat alone and was not even notified of her first grandson!

"Mother," called David from the bedroom window. "Aren't you coming to bed? Aiming to stay there all night?"

"I'll be in, in a minute, David," she wondered what they would call him? Oh, well, it did not matter. She slowly pushed back the bench and rose to her feet.

"She did," "She didn't," "She did—she didn't," croaked the katydids.

"Yes, she did, she did," echoed Nancy miserably, as she went into the house and to bed, "She surely did, wean my boy away from his mother."

Next morning David rose early, grim determination in his eye. "Mother, you and I are going to town to see Joey's baby. Just get into your best bib and tucker and I'll hitch old Rowdy into the carry-all and we're going straight down there. I'll show that John McCleary if I have spent twenty-five of the best years of my life rearing a fine boy like Joey just to turn him over to him."

Nancy looked at David fearfully. "Are you going to say that, Father?"

"I surely will, if there is any one to say it to."

NANCY knew he meant it. He had tossed all night angry and hurt as had she. She knew something must snap soon, for David was not one to sit and grieve like she was. She did not object. She knew it was useless, so she brushed her worn black silk and put fresh lace at the neck and adjusted the black crepe bonnet that had done service since Grandpa Bascom's funeral, and meekly took her place beside David.

She said, "It'll be just like pulling teeth. David, going into that big house and being eyed by all those servants."

"Never you mind, Nancy. We are straight forward American citizens. We're honest and always pay our debts and go to church regular. Joey has no call to be ashamed of us."

"I know, David, still I'd rather not. I feel so out of place among all those stylish folks."

"It is our place to go, and we are going." When David drew his lips together like that, there was no use to argue, so Nancy kept still.

David drove along determinedly. They came to the railroad tracks and crossed them, then through the business part of town and into the residential section, then on, until they came to Millionaires' Row where the McClearys lived. Here mansions were set far back from the street and surrounded by beautiful trees and whole acres of choice shrubbery.

Nancy's heart almost stopped beating as they mounted the steps of the McCleary mansion. David rang the door bell. A little stout man answered the ring.

"We want to see Mrs. Joseph Bascom and the new baby," said David, planting one foot squarely in the doorway.

"I am sorry, sir," said the butler,

"but I cannot admit you. It's orders, you know."

"See here, man, I'm that baby's grandfather on his father's side, and I will not budge an inch until I see him!"

"Have you a card, Sir?"

"No. Just tell them David Bascom is here to see his grandson." The butler departed leaving David and Nancy standing in the doorway. Presently he came back. "I am sorry. I cannot admit you. It is orders."

David turned on his heel followed by Nancy.

Joey ran up the steps just in time to see the old carry-all rounding the corner.

"Were my father and mother here?" he demanded of the butler. The butler admitted it.

"Did they see the baby?"

"They did not. Mrs. McCleary would not allow it."

JOSEPH took the steps two at a time. There evidently was a stormy session above, for shortly Joseph came down very red of face and very angry and in a great hurry. The telephone rang. Joseph answered. The voice was strange.

"John McCleary shot and killed himself at the bank just now. Is this Bascom? Come down right away."

Everything else was forgotten. McCleary shot himself? But why? He put on his hat and ran for his car. He was met at the bank by a dozen officials.

"Why, what is it?" he gasped.

The officers explained.

"Why—why," stammered Joseph, "I cannot believe it. There must be some mistake."

"None at all, young man. Your father-in-law was about one hundred thousand worse off than nothing."

"He owned his home, I believe."

"It is mortgaged for more than it will bring. You are up against it, Bascom. I am afraid," said the kindly old bank examiner. "McCleary was an escaped convict. His real name was Jackson. His game was about played here. We have been suspicious for some time, but he had his tracks so well covered it was some time before we could get positive proof. We got here just in time. He had his satchel packed with bank notes and was preparing to abscond. Another hour and he would have been gone. His wife is as bad as he. I am sorry for you, Bascom."

"I—I don't know anything about it, sir. I cannot believe it yet. May I take charge of the body?"

"The coroner will attend to that. Remember your wife is no blood relation of theirs. She was adopted, you know," added the examiner kindly.

Joseph tried to collect his scattered faculties. He must notify the folks. He had no particular use for the old lady. She had insulted him. She had openly ridiculed his father and mother and had not allowed him to see Katy. Why, it had been days since he had seen her! McCleary had kept him so busy, and Katy was always asleep, according to Mrs. McCleary. What a glib little fool he had been. It was plain enough now. Why had he been so blind? They were planning on taking the bank's funds and going away, leaving him to shoulder the blame. McCleary was caught in the act and had killed himself. Yet, somehow, he could not believe Katy was a party to it. She surely had cared.

The baby was unwelcome. There was something queer about that. Katie was not like her old self. Joseph puzzled over her behavior in the light of recent happenings. Had they kept her under the influence of drugs? He would put nothing past them. There were so many things that looked suspicious now. He had been kept so busy at the bank. Too busy to realize things were not going right. Too busy to visit his father and mother. Too busy to care

for Katy as he should. What a fool he had been!

Now he understood McCleary's consternation about the baby. They had planned on taking Katy and going so far no one would ever find them, and he was to be left behind to fight it out as best he could. Anger almost overcame him. They knew he was honest. Thank God, they had known better than try and corrupt him—but hold, had not McCleary tried to corrupt him? There was that mistake of McCleary's he had cleared up in the old Randal estate. McCleary had evidently thrown that thousand in his way as a feeler. If he had winked at that, he would have let him in on the others. Yes, McCleary had tried to entangle him. But what had Katy to do with it all? He wished he could be sure.

"There is no reason that I should stay here, is there?" he demanded of the men in charge.

"Sorry, but we will have to arrest you, Bascom. It will be cleared up soon. Perhaps your father will help you. Had you out, I mean."

His father? Was his money still in McCleary's bank? Joseph did not know.

"Is it necessary to arrest me? I do not know a thing about it."

"That may be, Bascom. In fact I believe you are innocent, but the law must be complied with. Isn't there some one you can get to break the news to your wife?"

Joseph could think of no one he cared to telephone to. Every one he knew had money in that bank. The whole town would be aroused probably. He dared not risk it. At last he thought of his father. He would be home by this time. He would call him.

In the meantime, David and Nancy jogged along behind old Rowdy. "That is the last time, David Bascom, that I ever enter that house."

"You did not enter it this time, strictly speaking, did you, Nancy?" chuckled David exasperatingly.

NANCY burst into tears. "The McClearys are thieves, David, they stole our boy. I hate them. That is what we get for rearing a fine boy like Joey, David. We should have kept him home on the farm with us."

"I don't know," replied David defensively, "you can't lay this to Joey, Nancy. I'll wager he will never know we were there."

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What pride she used to take in her chickens! The broiler money always went for Joey's school clothes, but now—

She slumped on the bench again and held out her work-hardened hands. "Joey, Joey," she cried, tears trickling over the worn black silk, "I should have moved to town and played the lady. I made a mistake. I should have kept up with you, instead of making a drudge of myself. Then I would not have lost you."

It was nearing dinner time and still she sat there. David had never been a money-maker, she reflected. He was too honest. Still they owned their farm and had a comfortable sum laid by, or had until David took first mortgage on an adjoining farm. Yes, David had done well enough for a farmer, and how happy they had been until Joey married.

At last she went into the house and busied herself with dinner. She took no interest in it. David was never hungry. The tea kettle sang merrily. After all, what was the use worrying over something you could not help? Joey was lost to them, still they had each other. She wished their daughter had lived. The old rhyme rang in her ears, "A daughter's a daughter all her life, a son is a son till he gets him a wife."

David came stamping into the house. That was a way David had of almost stamping the soles off his shoes to clean them before he came in. "There, mother," he said cheerily, patting her on the shoulder, "Let them go. We will get along, I calculate, as long as we have each other."

"Do you suppose Joey will know we tried to see his baby?" faltered Nancy.

"He will never know by me telling. I am through. We worked hard to educate him, and since they've got hold of him they have likely convinced him that we don't count. They will have it their own way for all of me. I am mighty glad I drew my six thousand out of McCleary's bank. I won't have any more business there."

"But David, I don't believe Joey knows. He told you to come and see the baby, didn't he?"

"Yes, he told me to come and see it sometime. It will be some time before I go again. He can bet his bottom dollar on that!" fumed David angrily. "Married a walking fashion plate, he did, without a brain in her head!"

"I guess we were some to blame, David. We tried to make something fine of him, and we got him a little too fine for his own folks. The McClearys are the opposite of us. Their women folks could not cook a meal of victuals to save them!"

The telephone rang. It was a party ring. David answered it. "This you, David? This is Ike talking. Mc-

Cleary's bank has failed and John McCleary shot himself. Stole one hundred thousand of the bank's money. Was just making off with it in a satchel when they nabbed him."

"What?" yelled David. Nancy came and stood beside him.

"There is a run on the bank. Thought I would tell you," Ike hung up the receiver.

David called him. "Ike, where is Joey? Did you hear?"

"I snum, I forgot all about Joey in the excitement. Hang up a minute, David, and I'll find out." David hung up the receiver and he and Nancy waited impatiently. Minutes seemed like hours. Presently Ike called again.

"They are holding Joey. I wouldn't worry. He will come out all right. We all know Joey Bascom," comfortingly.

JUST then central cut in with David's number. David answered. "Father? This is Joey talking. Something terrible has happened. McCleary shot himself and there is a run on the bank. They are holding me, and Dad, I need you. There is no one at the house with Katherine and her mother. Won't you come?" David hesitated and Joey continued, "I know how they treated you and I was coming home to you, when this happened. And dad, tell mother I was coming for good too, but now I don't know what to do. Won't you come down?"

"Where will I see you, Joey?"

"At police headquarters. Come right away."

Old Rowdy had barely finished his dinner. Nancy piled up the unwashed dishes and donned the black silk and crepe bonnet. "Anyhow they are mine," she said thankfully.

They drove straight to headquarters. Joey held in a place like that!

"Will you go up to McCleary's and see if they need anything and tell them I can't get away. Dad?" asked Joey, beseechingly.

"I swore I would never go near them again," replied David, belligerently.

"I don't blame you, but they haven't a friend in town. You better go. And father, make them give you my baby. They don't want him." Joey's voice faltered. David looked up questioningly. "Oh, dad, I have been so miserable. Do you suppose you and mother could take my baby?"

David turned to Nancy. "You wait here, mother, with Joey until I come back."

David ran up the steps of the McCleary mansion for the second time that day and rang the door-bell. The butler opened the door a crack. David pushed it farther. The dead banker lay on the davenport. Bewildered servants clustered about.

"Where are the women, Mrs. McCleary and Joey Bascom's wife?" demanded David.

"They have gone. Took all their valuables and pulled out hours ago," replied the butler contemptuously.

Just then a pit, pit wailing filled the house. "They took all their valuables but Mrs. McCleary would not let Katy take her baby. Just dragged her out of the house by main force. I believe the girl was drugged. That was before they knew about this," pointing to the dead man. The baby was still crying. David carried him to Nancy.

That night after Joey was freed, David made room in the old carry-all for Joey and the baby. Poor Joey, cynical and world-weary. What a lot of mothering he needed, thought Nancy. She must make it up to him somehow. The baby nestled uneasily in his blankets. The hurt look in Joey's eyes tormented her. At last old Rowdy turned in at the gate.

After supper David and Joey went to the barn to finish the chores. Nancy stood in the doorway and watched the lantern disappear behind the barn door. She had her own back again, not the rollicking, care-free boy of old, but a cynical, world-tired man, and she was not happy. She would have given her life to have brought him happiness. She fed the baby and rocked him to sleep and tidied up the kitchen.

Came a timid knock at the door. Nancy opened it and in fell Katy, all but exhausted by her walk from town.

"Mother," she sobbed piteously, "I want my baby."

Nancy's stern gaze gradually melted. Katy was so young and so frail, and there were black marks of suffering under her eyes, so Nancy drew up a chair and placed the baby in her arms, and there she sat when Joey came in. He looked dazedly from one to the other. The hopeless expression on his face changed to wondering joy, as he exultantly turned to his mother.

"Mother, mother, she does care! She does love our baby!"

With a sob Katy flung herself into his arms. "Joey, Joey, I didn't know until I nearly lost you how much I cared. Mother was determined I must go with her. I was too dazed to understand. She almost dragged me to the station. Then something snapped in my head and I slipped away and ran. I must find you, I thought, and I did," she added happily. "Are you glad?" An anxious expression crept into her eyes.

"More glad than you will ever know, sweetheart," he whispered, as he drew her to him.

All the bitterness died out of Nancy's heart as she took the baby in her hungry arms and sat crooning to him under the locust trees. The katydids were still quarreling.

"Katy did," "She didn't," "She didn't."

"Mostly she didn't," echoed Nancy happily.

Herb, the Handy Man

FARM FIRE LOSS in U.S. farms was \$560,000,000 according to the U.S.D.A.

WHAT'S THE SUREST PROOF AGAINST FIRE? A FELLER KNOWN AS ALBERT!

ONE O' THESE TRICK CIGAR LIGHTERS!

DOES HOMER STILL KEEP THEM FIRE EXTINGUISHERS AROUND HIS BARN?

NOT SINCE THAT TIME HE MISTOOK A PYRENE EXTINGUISHER FOR A SYRINGE AND INOCULATED HIS COW FOR PYORRHEA INSTEAD OF T.B.

ARE 4 IMPORTANT FIRE PREVENTION MEASURES:

1. **At least 1 chemical fire extinguisher in each of the larger buildings (incl. house).**

2. **WATER SUPPLY available to all buildings**

3. **LIGHTNING RODS on all buildings**

4. **BUILDINGS SPACED OUT far enough to make the spreading of fire difficult.**

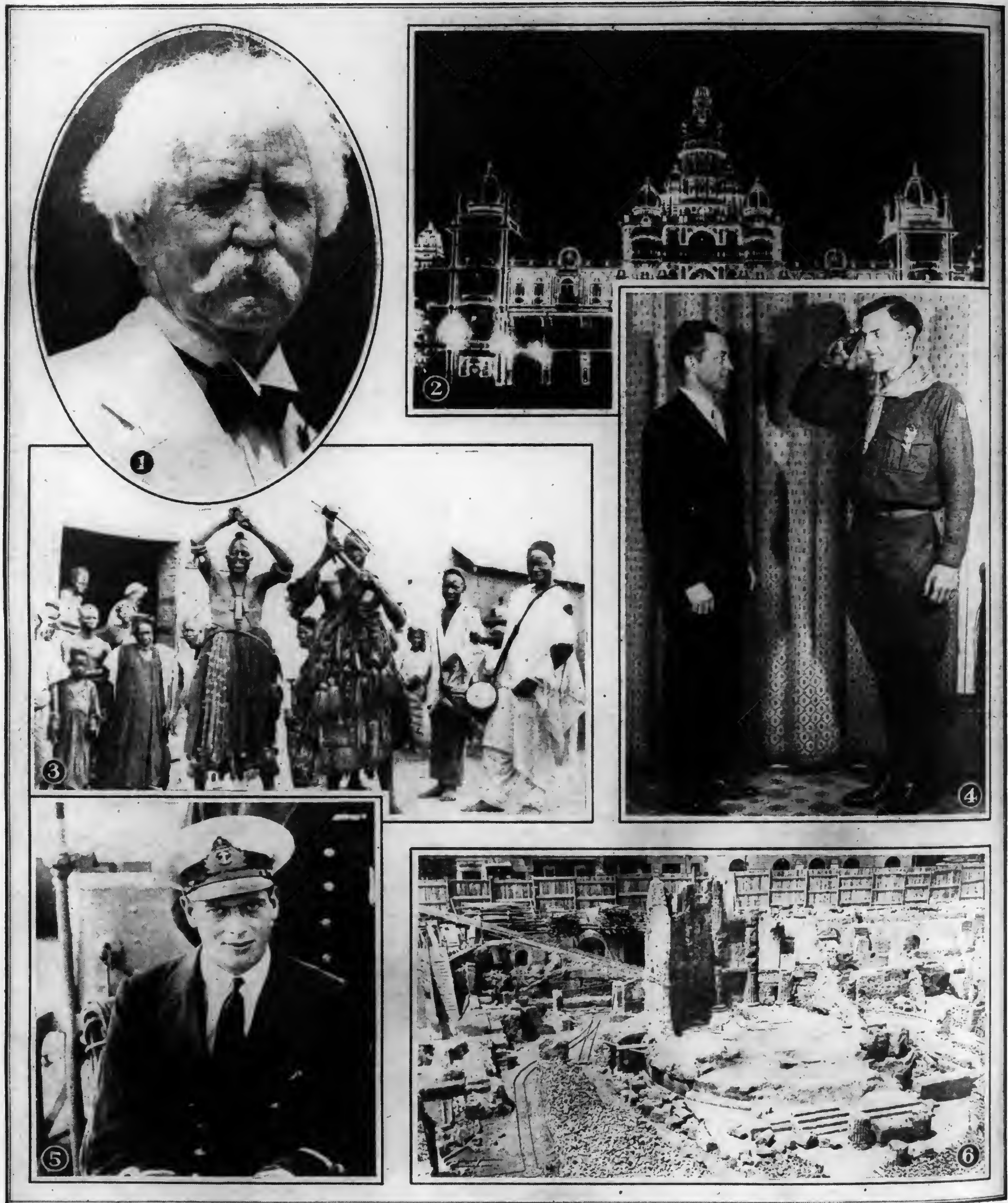
WHAT'S THAT FIRE INSURANCE INSPECTOR DOING OVER AT SANDY MACTAVISH'S PLACE?

SANDY GOT SUNBURNED YESTERDAY TRYING TO COLLECT HIS FIRE INSURANCE ON IT.

THEY'VE NO CHANCE ROSCOE, I TELL US CARRY THE KEY WITH ME.

RADCLIFFE, YOU OUGHTA CARRY FIRE PERFECTION! WHAT IF YER HOUSE SHOULD BURN DOWN SOMETIME WHILE Y'ORE IN TOWN?

EVENTS CAUGHT BY THE CAMERA



1. A close-up of William L. Rigdon, a poet of Topeka, Kansas, who bears a close resemblance to the famous Mark Twain—both in looks and manner of speech.
2. The palace of the Maharaja of Mysore in India as it looks at night. This recalls the magnificent grandeur displayed in the famous Arabian Nights stories.
3. Two itinerant medicine men from Nigeria. They are showing the "hoe dance" on a street in the

village of Abeokuta, Southern Nigeria. Note the innumerable charms which make the costumes of these "doctors" who travel about upholding the ancient beliefs and customs of the primitive Nigerians.

4. Paul A. Siple saluting Commander Byrd upon his arrival at the Commander's headquarters in the Hotel Biltmore, New York. This Pennsylvania Boy Scout was selected from among thousands of applicants to accompany the Byrd expedition to the Antarctic regions.

5. Prince George, fourth son of King George and Queen Mary of England, sailed recently for Canada. He will cross the continent and join H. M. S. Durban, on which he has been appointed interpreter in French. He joins his ship at Vancouver.
6. The ruins of a mediaeval temple which were discovered by workmen while excavating for the erection of the new Argentine Theater at Rome, Italy. Notice how well preserved the walls of the temple are.

(Copyright by Underwood & Underwood)

September 22, 1928

National Swine Show

(Continued from page 16.)
Grenard of Waynesboro, Ind., were good winners at the show. They paid \$1,250 for the top it off with. They also bought both Duroc champions, both being owned by a specialist of that name who also has a large farm in Ohio. The Duroc, a junior yearling called The High Ware, was sold for \$1,750 by Manager Tom Patterson.

Eastern Winners

In the dozen or more Spotted Poland-China exhibitors were two from the east end of the Corn Belt who won frequently. One was the Wilt Farms of Hillsboro, Ind., and Walter E. McCoy of Washington C. H., Ohio. Wilt won sixth and eighth in pig of size on pigs by The Limit. McCoy won fourth on breeder's herd. Both won a number of other places.

Chandler P. Raup, Springfield, O., was the only eastern man with Durocs. He won first in senior yearlings with The Count, a toppy boar, and second and seventh in junior sows, his second being his Ohio and Indiana champion.

Frank C. Oren of Wilmington, Ohio, was the only eastern exhibitor in Hampshires, winning first and fourth in senior pigs with a pair by Twin Cedar Clan 1st, which were sixth in produce of dam. Rennie of Nebraska, a veteran breeder and showman, was a heavy winner all the way through in spite of strong competition.

Discuss National Policy

An innovation this year was conferences on subjects in the swine industry having to do with production, improvement and marketing practice. They were attended almost wholly by officials of swine associations, farm paper editors, swine equipment manufacturers, representatives of the U. S. Department of Agriculture, the colleges and the packers. Contact men of the local packing firms were present, the first time in the history of the show in so large number. Only a few breeders were present. The interest of the packers was taken to mean that they have been induced to get behind the projects now to be considered with financial support.

One of the projects is the organization of a program for lessening the loss of live-stock in shipping. This and the three others to be named are discussed under the head of a "national policy for the American swine industry." A special plea for a nationwide organization to carry on educational work to check losses in shipping was made by Earle G. Reel of the agricultural department of the New York Central Railroad. The report of a committee to go ahead with the project was approved at the annual meeting of the Swine Growers' Association. H. R. Davidson of the Institute of American Meat Packers is chairman.

An "Advanced Registry"

A committee named to report on a record of swine performance of the National Swine Growers Association announced in favor of naming a committee to prepare a plan for a record, to plan for carrying it out, and suggested cooperation between state and federal agencies and the Swine Growers' Association. James R. Wiley of Purdue University was chairman and the committee was organized to do the work.

The committee on swine type acknowledged the need of changes in the type of the bulk of market hogs as suggested by the packers and recommended that the Swine Growers' Association request a complete revision of the subject by the U. S. Department of Agriculture. R. J. Evans, secretary of the American Duroc breeders, was chairman and the committee was organized to carry out its recommendations.

A national board to establish a national swine production policy was recommended by a committee headed by an Iowa farmer, R. M. Gumm, who has also been active in farm organizations in recent years. The plan calls for a survey of conditions to obtain active cooperation in making such a board. It would be constituted of representative men in agriculture. When the board is named the committee shall cease to function. This board then shall function as a fact-finding body to advise the farmer how many and what kind of hogs to raise.

The Institute of American Meat Packers made an exhibit of a carload of hogs representing the desirable market type. It was to show the trend away from the extreme fat to a leaner hog. It is the first exhibit of the kind ever made.

Archie F. Sinex of Tama, Iowa, country hog buyer for Cudahy, was reelected president of the Swine Growers' Association; Arden McKee, an Iowa Duroc-Jersey breeder, vice-president, and G. M. Cantrall, Des Moines, Iowa, breed paper publisher, was reelected treasurer. The board of directors was enlarged and among those newly elected were E. W. Sheets and E. L. Harlan of Washington, D. C.; H. R. Davidson of the Institute of Meat Packers, and W. S. Kidder of Ohio. Thirteen others were named. E. M. Christen, secretary of the Berkshire Record, has been serving as secretary. This office is filled by the board. L. E. T.

"My Calf Club Work"

(Continued from page 23)

was the Crawford county dairy cattle show and this time Vida was placed fifth on type, winning \$4 in cash and also a special prize of 100 pounds of dairy feed on feeding, care and development.

The following May, 1927, Vida freshened again. This time it was a bull calf, which I sold at ten months of age for \$75 to become herd sire in a good Jersey herd in Forest county.

This year Vida was again tested as before, producing, according to Pennsylvania State College records, 311 pounds of fat and making \$200.75 above feed cost. In August we again exhibited the calf club heifers (or cows now), at the Crawford county show and I won third place on Vida in a class of ten on type, and a special prize as second in production. Blonde's Komneyant Lily, in a junior calf class, won third place. My winnings this year consisted of \$75.00 in cash, a leather hat box, a gallon of ice cream and a box of chocolates. In March, 1928, I sold Vida, then dry and due to freshen in April, for \$175 to a Jersey breeder from the state of New Jersey.

Vida's heifer Blonde's Komneyant Lily freshened on June 18, 1928, with a nice heifer calf which is growing well and is smooth and pretty in type. Lily herself is a very straight, pretty individual and I could have sold her to several different buyers for calf club work, but did not want to part with her. Her first month in milk she made 42.2 pounds of butterfat and 929 pounds of milk, a better record than her dam Vida made in any one month, and Lily is a much prettier heifer as regards type.

So from my calf club investment of \$78 I still have Lily and her calf, which I value

The Cheerful Plowman

Criminals

I USED to say, "Dad blime it, why put the crooks in jail, a man with jollyish record must ever after fail? No man can serve a sentence and ever live it down, for people will suspect him in country and in town; they'll say, 'Ah, he's a jollyard, we must be on our guard, I know he is a sinner, I know he is a card!' Why fix him with a stigma, why mark him with a brand, why butt him out of circles respected in the land? Why not just try to teach him that two and two make four, and no amount of twisting can ever make them more?"

"Why not say, 'Listen, brother! You're on the crooked path, your figure need adjusting, your morals need a bath. Come on and change your plumbing, come on and be a man, come walk the straight and narrow, I'm certain that you can! Come on and share my cottage, come on and share my crust, come on and share my garments, come on and share my trust!'"

"That's how I used to reason until by

at \$200 at the least, besides realizing \$250 from the sale of Vida and the bull, the yearly profits above quoted and the various prizes which I have won at the shows. This shows what calf club work will do for a boy or a girl who works hard and tries to do their best, although they may think they do not have the nicest calf in the club to start with.

DOROTHY ADSIT.
Connant Lake Jersey Club.



A YOUNG farmer I know has one fault which hinders him from taking the place he ought to in the world. It really is a good farmer. His work is always done on time. He is up-to-date in his methods, but he does not think well enough of himself. Often he speaks of himself and his work in a slighting way, as if it were of little account. In other words, he is not as proud of himself as he ought to be.

A great many years ago a wise man said something about not thinking of one's self more highly than one ought to think, cautioning men against that as a menace to real success. There is some need of that on the part of a good many people. It is natural for these good folks to "crack themselves up," and in that way bring upon themselves the criticism of their friends. This is carrying pride too far.

But there is such a thing as being too modest about one's own ability. You and I have a right to think well of ourselves. We are in a big business none more so in the world. Without us the world would soon come to a standstill. Farmers feed and clothe the millions who are engaged in other lines of business. They in other ways hold the world level.

I know some of our work is not just as pleasant as it might be. It is hard; it is exacting; it leaves stains on our hands. White shirts and patent leather shoes are out of place while we are cleaning up the barnyard and carrying out the droppings from the hen houses. But if we do all these things in a princely way we never ought to be ashamed of it. There is such a thing as living like kings and queens amid the everyday scenes of our farm life; and the man or the woman who does that may hold up his head and sing, "I'm the child of a King," which he is, just as surely as is the greatest saint on top of this green old earth!

EDGAR L. VINCENT.

The Market Place

The apple crop this year is generally believed to be considerably larger than last year but there seems to be some difference of opinion as to just how much larger it



slow degrees my young enthusiasm began to chill and freeze. I took a hardened duffer into my house one day and tried to tell him gently the same, better way, but zip, he stole my razor, my shotgun and my shoes, then held me up and robbed me of all my Sunday dues! I found another fellow that needed care and food, so took him home and showed him my kindest human mood; but zip, he stole two horses, a buggy and a whip and took, I'm bound to reckon, a very lengthy trip.

I tried, and tried, and tried it, but found it seldom paid, until at last I filtered and sort of grew afraid, and now I've must concluded that tough and hardened men, just have to be secluded and quartered in the pen. Society can't leave them to prey on honest genes and try to teach them morals and common honest sense, for more than I can scatter those noxious weeds around and hope they will not hinder good plantings in the ground!

J. E. T.

will be. There are many things that may happen between now and harvest but dealers and growers are optimistic and that is a good sign.

Right at this time the market for McIntosh, Smokehouse, Greening and Maiden Blush is improving in the East and the outlook for export apples is good. One thing that is certain is that well packed high quality fruit will bring a premium. The most striking thing you notice on a trip through one of the large markets is the variation in the pack and quality of the fruit.

Eastern apple growers have made great improvement in grading and packing during the past few years. There has been a shift from the barrel to the bushel basket. Some Pennsylvania and West Virginia growers have been using the western box with good results. The barrel has its place, but I believe the box and the basket will be used even more extensively in the future.

The retailer in the city prefers the smaller package. It makes a better display, is easier to handle and prevents bruising. The smaller package has a quicker turnover and enables the retailer to carry a large number of varieties. One of the most popular and attractive packages is the bushel tub.

This morning I saw a load of Smokehouse from New Jersey on the Philadelphia wholesale market. They were ring faced in bushel tubs with a colored paper liner. The covers were clearly stamped with the grower's name and address and with the variety name and size. These apples were clean and of high quality; they sold at \$2 per bushel. Another lot of Smokehouse in bushel baskets not as well graded and packed but also of good quality brought \$1.25. There is little doubt that a small added cost in time and package would have been a good investment. Apple prices may drop or go higher, but the principle will remain the same in a normal year.

Apples reach the wholesale district and are stacked in piles in the stores. A few samples are opened from each stack for the buyer to inspect. This means that the outside of the package is on view and the buyer sees that before he sees the fruit. Some shippers pay a high price for containers and then allow them to stand out in the weather or in a poor shelter where they become weather stained. A pile of weather-stained, or second-hand baskets is not very inviting and does not attract favorable attention. In marketing apples on a large market the second-hand basket is a disadvantage.

Fall and winter apples should be packed with shredded oiled paper if they are to sell at top prices. This is particularly true if they are going into storage, since the paper helps prevent mold. This paper now comes in various colors and a green paper with red apples makes a very attractive display. Red or purple paper is often used with Grimes Golden, Greening, or other green and yellow varieties.

This is a "far call" from the time when apples were just dumped in sacks or shipped in bulk in cars and wagons and these trimmings may seem a waste of time and money to some growers. The western apple grower has been able to outsell his Eastern competitor not because his apples were better flavored but because the buyer could count on the bottom of the box being the same as the top and because of the attractiveness of his pack.

Now the western growers and shippers have appropriated large sums for advertising their brands and are bringing them before the housewife as never before. I believe the consumption of all apples can be increased by first perfecting the pack and then follow this with advertising. When this is done the East will have a decided advantage over its western competitors on account of its nearness to the large domestic and export markets.

W. R. W.

PUZZLE WINNERS

The answer to the puzzle in the September 1 issue of Pennsylvania Farmer (the puzzle about something which was beginning about them) is SUNDOL. The prize winners are:

- Sped. Ballinger, age 7, Burlington, N. J.
- Clyde Corbett, age 9, Tyndburg, Pa.
- Frank Ditz, age 10, Benton, Pa.
- Edith Elmert, age 8, Froehold, N. J.
- Florence Fullerton, age 9, Burlington, N. J.
- David W. Jackson, Jr., age 10, Cobranville, Pa.
- Grace L. Moore, age 6, Bridgeville, Del.
- Reilly Vowler, age 7, Bannock, Pa.
- John Willie, age 11, Fork, Md.
- Lydia J. Voder, age 11, Myersdale, Pa.

Farmer's Business Letter

URGE HOLDING WHEAT

A WHEAT crop of 91,072,000 bushels, the largest in nine years, was indicated in the government report. The winter wheat estimate was particularly surprising and showed that this year's returns were more than farmers had expected. On the heels of this report came the Canadian report placing the Dominion crop at 550,492,000 bushels, a big increase over last year and a record yield. Yet Secretary of Agriculture J. C. Brannan urges farmers to hold wheat.

"Present low prices of wheat have been caused in part by heavy marketing during the early part of the season," he says. "That this is true is known by the fact that in July of last year the Kansas City market received 13,000,000 bushels of wheat as compared with 35,000,000 bushels this year. In this respect the use of the combine harvester has aggravated the marketing problem. The combine has revolutionized the harvesting of wheat by reducing costs and the time necessary to do the job, but it has brought about a marketing situation which the farmers must meet in the sale of their product."

"Farmers who sell their wheat without regard for the market may have cause to regret it later. It is not too late for large numbers of wheat growers, equipped to do so, to protect themselves by storing their wheat, because our experience has taught us that large production usually has an unduly depressing influence on prices early in the season, and a subsequent upward corrective tendency can generally be expected."

Test for Wheat Pool

It is the opinion of some observers that the Canadian wheat pool faces its first real test this season. The maintenance of prices through orderly marketing has been one of the stock arguments for the pool. Conditions in recent years have been such as to indicate success in that direction. But this year with a big North American reserve and a big crop, particularly in Canada, it is quite a different story, and advance payment to growers had to be cut to 85 cents. Broomhall, the much-quoted English wheat trade authority, in a review of world wheat conditions directly charges the pool with responsibility for present low prices on the ground that pool managers, by promising high prices, induced farmers to raise larger crops. This result is similar to that feared by opponents of the McNary-Haugen bill—high prices, higher surpluses. "In Canada and Australia as well as in the United States and Argentina," says Broomhall, "farmers have been led to believe fortunes could be made in wheat crops under the pooling system and acreage has been expanded when it should have been reduced." Opponents of the Canadian pool have called it "the biggest speculative exploit in the history of marketing."

Corn Price Outlook Brighter

The government report on the corn crop came as something of a surprise to many mid-western farmers, who had seen a wonderful growth of the plant all around them and supposed it was much the same everywhere. But Nebraska was hard hit by the drought, and there were August losses in Ohio, Pennsylvania, Indiana and a few other states, bringing the September estimate down to 2,900,000,000 bushels, a loss of near a hundred million bushels from the August 1 figure. It now appears that those looking for fifty-cent corn next January—there are reports of corn contracted at that figure—may have their estimate too low. If the crop does not prove to be larger than that now indicated it will all be needed, in spite of less livestock to feed it, for reserves are gone and quite a lot of corn will be required to build up the usual supply held over from year to year. This feeling was reflected in an advance in the corn futures market this week.

Strong Beef Market

The cattle market was higher on the top end this week, lower on in-between kinds and strong on the plainer grades. Top moved up to \$18.60, highest since last January, and destined to go higher, in the opinion of many. Cattle selling around \$15.50 looked all of 75 cents lower this week as compared to last. But at \$14 and under, prices were steady to strong with last week, due to active feeder demand in competition with slaughterers. Bulk of steer sales this week were within a range of \$15 to \$17.75. Strength of the demand for top beef was indicated in the auction

sale of club calves this week, 228 head averaging \$18.10, with a top of \$20.50. Receipts for the week at leading points were a little larger than last week, but much under the same week of recent years. Westerners are coming rather freely now, but in numbers greatly reduced from recent years. Range cattle producers are in clover. Prices they are receiving are around \$3 a cwt. higher than a year ago at this time, and last year was counted one of the best years they ever had, production cost considered. To what extent prices will stimulate range production remains to be seen. It is certain, at least, that they are a temptation to sell, and that may mean close culling, the movement of considerable she stock, and so check expansion. Top on western steers so far is \$15.50.

Demand for feeders is good, strong enough to move quotations up about 25 cents this week. Most of the purchases of steers for feeding are at a range of \$12 to \$14, with occasional loads even higher.

During July and August this year nine markets sent 305,280 head of stockers and feeders to the country, against 314,937 during the same two months last year. But these are light months in the feeder trade, and last year the movement was much smaller than usual, so the figures given are hardly to be taken at face value as an indication of increased production.

Cold Storage Report

Cold storage holdings of meats and lard in the United States fell off sharply during the month of August, and compared with the September 1 five-year average. The report, government report indicated that there was around one-fourth as much beef, slightly less pork, but one-third more lard in storage.

Frozen and cured beef shows the greatest decline, holdings on September 1 this year being 11,916,000 pounds smaller or 27 per cent less than the five-year average. Although frozen pork fell off around 30 per cent from August 1 this year, there was a 30 per cent increase compared with the five-year average. Other pork, cured and in cure, showed a substantial decline and total pounds of cured and frozen pork was slightly less than the five-year average. During August lard stocks fell off 26,713,000 pounds, a 13 per cent decline for the month, but on September 1 there was still an increase of 32 per cent or 43,524,000 pounds over the September 1 five-year average.

At present the country has less beef and pork in store than it has had for the past five years, but a surplus of lard. Lard, however, is being used up rapidly. Dairy products and poultry in storage were not far from the five-year average in most instances.

Small Hog Run

With hog receipts so far this month standing smallest since 1920 and no marked increase in sight for the next few weeks, prices continued to set up new high marks for the last two years. Uneven gains of 25¢ to 75¢ were scored since a week ago, the dwindling supply of sows and weighty butchers showing the sharpest price gains. Extreme top advanced from \$13 the middle of last week to \$13.50 on recent sessions, comparing with a top of \$11.50 six weeks ago and with \$12.15 a year ago.

The appearance of \$13 hogs at some of the lowest outside western markets added zest to trading in mid-week, despite a relatively lower level of prices at some nearby eastern markets, which pulled several big orders away from Chicago Thursday and Friday. An abrupt break in some cuts of fresh pork slowed up competition among smaller local packers, but with supplies far below normal, daily holdovers were cut down almost to the penholders. A fair showing of young hogs from the new crop has been causing some speculation as to near future supplies. Most traders are of the opinion that there will be no marked increase in receipts until November, when the bulk of the winter run of hogs will be available for feed.

While good light and light butchers are increasing in numbers, weighty stock has shown a substantial decrease. The proportion of sows on recent sessions has been around 30 per cent, against 50¢ to 60 per cent about a month ago. Weights as usual at

this time of the year are expected to drop off, showing a substantial decline before the middle of next month. The average September weight during the last six years stands at 251 lbs., with the October average for six years at 241 lbs., and the November average at 233 lbs. Hog receipts at Chicago so far this month show a decrease of 50,000 compared with a year ago. It will be remembered that receipts in September, 1927, at 446,000 were smaller than any month since October, 1920. The year to date increase has been reduced considerably during the last few weeks and many are of the opinion that the 1927 and 1928 totals at the end of the year will not be far apart.

Lambs Much Lower

The largest sheep receipts since October, 1926, precipitated fat lamb prices to within 10¢ of the lowest point of the season established three weeks ago. The largest supplies of the year from western range states were augmented by the big northward movement of natives and after holding up remarkably well during the first two days of the week, prices slumped badly at the close. Reports of congested dressed meat markets added to the depression on recent sessions and unless supplies are marketed more orderly from now on, the \$15 quotation will probably be out of use.

Mifflin Co., Central Penn'a

Sept. 8: Wheat \$1.45 per bushel, oats 60c, corn \$1.25, wheat straw \$12, hay (wholesale) \$14. Creamery butter 55¢ per cwt., country 50c, eggs 40c, potatoes (new) \$1, peaches \$1.50 per doz., chickens 30c. E. Ellsworth Claspby.

Yuma Co., Eastern Colorado

Sept. 7: Warm and dry, need rain bad. Corn filling out well. Pasture short. Wheat 90c. No corn to be had. Oats 30c, barley 40c. Not a big wheat crop. Butter 45¢ to 50c, cream 42c, eggs 28c, hogs \$10.25. Peaches and pears coming in slowly. New specials cheap. E. W. H.

Platte Co., Central Nebraska

Sept. 10: Corn is fast drying up and many fields in the county will yield but five to ten bushels per acre. Plowing for wheat is way behind because of the continued drought and pastures are all dried up, so that feeding is necessary. Hay is plentiful and of very good quality. Albert Miksch.

Huron Co., Northern Ohio

Sept. 10: Still very dry, with cool nights. A hard time to plow and find ground for wheat. Not much ground plowed yet. Unless a good soaking rain comes soon the acreage of wheat sown will be greatly reduced. Oats nearly all threshed and the yield is fair but the quality not very good. Farm work well along except that little wheat ground is yet fitted. E. P. S.

Pike Co., Southern Ohio

Sept. 11: Weather hot and dry. Corn ripening fast. Some farmers have started to cut corn. Potatoes generally a fine yield. Farmers undecided about sowing wheat. Good seed wheat scarce and high priced. A few farmers will sow old seed. Some are buying shipped-in seed, ranging from \$1.80 to \$2.20 a bushel. Pastures good and livestock in fine condition. No sickness. Louis Dourlet.

Morgan Co., Southern Ohio

Sept. 12: We are having a long dry spell. Corn will soon be ready to cut, fair crop this year. Not much stock for sale. Good cows in great demand. Not many eggs now; they sell around 30c. Butter 50c, potatoes 80c. Will not be very many winter apples, but lots of peaches. Not much plowing done for wheat. Cisterns about all dry. Schools have resumed work again. L. W. Williams.

Cumberland Co., Southern Penn'a

Sept. 7: Weather was unusually hot and wet during August, but September brought cooler weather and more rain. Plowing for fall seeding is about finished and threshing done. Wheat yields below the average, from 10 to 15 bushels per acre. Some fields were allowed to remain uncultivated until the young timothy grew up and then cut for hay. Oats a good crop. Potatoes ready to be dug and promise to be one of the largest crops in years. Corn heavy and promises a fine yield. Some silos are filled, but next week filling will begin in earnest.

for the next few days at least. Top prices fell from \$15.35 Monday to \$14.35 Friday, against \$15.75 at the close of the previous week. Prices finished \$12.65 to \$13.00 a week earlier, yearlings showing 75¢ to \$1 decline and aged sheep 15¢ to 25¢ loss.

Broad country demand played a prominent part in holding the lamb market above the \$15 line earlier in the week and will undoubtedly be a governing factor all fall. Feeder lambs are selling at the highest prices since last April and show signs of 15¢ to 25¢ over a week ago, despite the drastic cut in fat lambs. Feeder stock at the close were above the best prices paid for killers for the first time of the season. Fancy selections sold upwards to \$14.75, bulk of best clearings at \$14.25 to \$14.50, with only common to medium grades selling below \$14. Men from Illinois and Indiana were the biggest buyers, taking over 90 per cent of feeders on most sessions. During the week there were 347 cars received from the range, or 89,000 head, against 203 cars the previous week and 231 cars two weeks ago. Receipts the last two weeks totaled 230,000, against 190,000 the two preceding weeks. Included in last week's receipts were 30,000 from Washington, 31,000 from Montana, 16,000 from Idaho, 8,600 from Wyoming and 3,400 from Oregon. Only 600 arrived from Louisville, Chicago, Sept. 15, 1928. WATSON.

FOR THE HOME

NO ASSORTED dishes packed as first quality including of cups, saucers, plates, bowls, cutlery, glass, etc. All useful. Slightly damaged. \$2.50 prepaid. Send money to us for immediate shipment. Home China Co., Millin, Pa.

WANTED—Old Patchwork Quilts and Corsets. Give full description and price or no answer will be received. Box 125, Pennsylvania Farmer.

WANTED—SPECIAL BARGAINS—Handy Sewing Kit, contains 8 spools Silk, Pique, Trimble, needle, thread, sewing book, etc. Only 25¢. Walnut Specialty Co., Everett, Mass.

VIRGIN WOOL YARN for sale by manufacturer at bargain. Samples free. H. A. Bartlett, Barnum, Maine.

GLASS or BUCKLE—5 lb. pall. \$1.15. Getwell, P. J. Smith, Castalia, Ohio.

WANTED

Wool, WANTED—1 specialize in Wool and Sheep. Write to: A. A. Conover, Lebanon, New Jersey.

WANTED—Cattle Pupils. Will buy Hens. George Gordon, R. No. 1, Chatham, N. J.

HELP

WANTED—Man on dairy farm. Married or single. State experience and wages expected. Farmer, 415 South 5th St., Harrison, New Jersey.

WANTED—Experienced single man for dairy farming, good milk. Charles Eater, Edinboro, Pa.

PATENTS

PATENT—SUSSE—Valuable book (free) for inventor seeking largest desired profits. Lacey & Co., 733 P. St., Washington, D. C. No. 2.

FUR BEARERS

MAKE BIG PROFITS with Chinchilla Rabbits. Get more rabbits. Write for facts. 849 Conrad's Road, Denver, Colo.

AGENTS

AMBITIOUS WOMEN wanted immediately to introduce the new dress. Pleasant work. Good pay. Everything furnished. Fishers Dry Goods Company, 121 Fitzhugh Building, Trenton, N.J.

WANTED—Farmer or farmer's son or man to travel in country. Steady work. Good profits. Robinson & Company, Dept. F-2709, Winona, Minn.

GOATS

FRESH DOGHOUSE or bred Nubians sent anywhere any time. Big, easy milking, in-fallible or babies. World's Best Breeds. Golden-Breeds Company, Moulton, Pa.

HORSES

PERFECT—Saddlebred and October special. Saddle, \$125 to \$275; harness, \$100 to \$250. Wm. A. Bond, Oxford, Pa.

ALFALFA

RAY—All kinds alfalfa, clover, timothy and mixed, delivered prices. Harry D. Gates Company, Jackson, Michigan.

HELP—INSTRUCTION

WANTED IMMEDIATELY—Men to qualify for Bureau Civil Clerk test. \$150-\$225 month. Write, instruction Bureau, 472 Arcade Bldg., St. Louis, Mo.

MISCELLANEOUS

WHY BLAME THE BELL when your cow does not milk? Use Cow Catch 1 hour before milking. Results of your money back. 85 cents for one cow. \$2.50 for five cows. Postpaid. Woodstock Farm, Route 2, Box 40, Benton, Washington.

YARNS

of Pure Wool for Hand and Machine Knitting—also Rug Yarns. Orders sent C. O. D. Postage Paid. Write for free samples. CONCORD WORSTED MILLS, West Concord, New Hampshire.

HAY

To G. A. SCHNELBACH, PITTSBURGH, PA.

FOR SALE—100 pure-bred trapped Holsteins, yearling hogs, 210 eggs in 1 year. Price per quick sale, \$1.25 each in lots of 25 or more. Booklet White Leghorn Farm, Nevada, Ohio.

Spotted Poland Chinas 3 service hogs, 45¢ each and \$50.00 each. 2 for \$95.00. Registered in book. Only name and shipped C.O.D. This is all good healthy stock and guaranteed to please. A. J. STARKY, R. 2, Steubenville, Ohio.

FOR SALE—150-acre Poultry and Dairy Farm. All level, high productive soil. 2 sets good building. Best beautiful Poultry Eastern Penna. Poultry. Also fine farm for farm in four years. Price \$15 per acre. Dairy farms. Full particulars. Write Wm. W. REIDEL, Washingtonville, Pa.

ADVERTISING reduces the cost of products that add pleasure and comfort to living.

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FRESH DOGHOUSE or bred Nubians sent anywhere any time. Big, easy milking, in-fallible or babies. World's Best Breeds. Golden-Breeds Company, Moulton, Pa.

HORSES

PERFECT—Saddlebred and October special. Saddle, \$125 to \$275; harness, \$100 to \$250. Wm. A. Bond, Oxford, Pa.

ALFALFA

RAY—All kinds alfalfa, clover, timothy and mixed, delivered prices. Harry D. Gates Company, Jackson, Michigan.

HELP—INSTRUCTION

WANTED IMMEDIATELY—Men to qualify for Bureau Civil Clerk test. \$150-\$225 month. Write, instruction Bureau, 472 Arcade Bldg., St. Louis, Mo.

MISCELLANEOUS

WHY BLAME THE BELL when your cow does not milk? Use Cow Catch 1 hour before milking. Results of your money back. 85 cents for one cow. \$2.50 for five cows. Postpaid. Woodstock Farm, Route 2, Box 40, Benton, Washington.

NEIGHBOR DAVE SAYS—

"One o' th' folks dropped in th' other day. Said 'he bought a leadclad fence five years back. Didn't say no more for a bit, an' thinks I: 'My land! I bet something's wrong with that fence.' Reckon I must looked a little uneasy, for he grins an' goes on t' say: 'I'm buildin' a barn, an' I want t' buy a leadclad roof made o' th' same stuff as that fence.' Mebbe you'd like t' know about leadclad fences an' roofs, too. Just drop me a card, an' I'll send you th' catalog. Just address, Neighbor Dave, Leadclad Wire Co., Mountsville, W. Va."

FARM LAND

OHIO

FARMS—Southeastern Ohio, Ohio River Valley section. All sizes and prices. Write for information. Grover Realty Co., Gallipolis, Ohio.

FOR SALE or RENT—Bare poultry farm, in city of Logan, new modern home and buildings. Bargain at seven thousand. Warren Lansing Estate, Logan, Ohio.

FARMS—Most beautiful part Ohio. Prices low. Ward Chambers, Mt. Vernon, Ohio.

PENNSYLVANIA

FOR SALE—Good Pennsylvania farms at reasonable prices. Twenty percent (20%) cash. Balance long time loan at low interest rate. Write C. R. Thilo, Secretary, Federal Land Bank, Harrisburg, Pa.

LARGE LIST OF FARMS—In the "Garden Spot" of Pennsylvania. Get our folder. Suburban Real Estate Co., 45 Huie St., Lancaster, Pa.

MISCELLANEOUS LANDS

IN THE SAN JOAQUIN VALLEY of California good farms at a paying business. Feeding millions of people in towns and cities. Alfalfa combined with dairying, hogs and poultry. A good income. A small one-family farm, with hired labor, insured success. You can work outdoors all the year. Newcomer welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for Illustrated San Joaquin Valley folder and get our farm paper—"The Earth" free for six months. C. L. Seagrave, General Colonization Agent, Santa Fe Railway, 816 Railway Exchange, Chicago.

LAND OPENING—A New Line under construction in Montana opens a million acres of good wheat and stock country. Send for New Line Book. Minnesota, North Dakota and Montana offer best opportunity in two decades to secure good improved farms from banks, insurance and mortgage companies at a fraction of their real value. Send for lists, improved farms for rent, and prices should bring \$2,000 to \$5,000. Level to miles. Write today. Fred Wandell, Street Agent, Ohio, Court House, E. 2nd St., Columbus, Ohio.

Write for Free Book on state you prefer. Low Homesteaders' Rates. E. C. Lewis, Dept. 621, Great Northern Railway, St. Paul, Minn.

\$1,500 GETS DAIRY FARM—151 Acres on State Highway, 140 acres tractor fields, immense crop hay, grain, potatoes; woodlot, fruit, spring water, good pastures; attractive 12-room house, hardwood finish, running water, soft, hard, six months, makes \$8. Lawrence Gierler, Lexington, Ohio.

COLLE PUPPIES—The kind everyone wants. Bred as well as beauty. Catalogue free. Brinsford Bowden, Box 1851, Mansfield, Ohio.

PERFECTED COLLIE and Fox Terrier pups, handsome and intelligent. London Kennels, Greave City, Va.

PAIR OF COONHOUND PUPS, ready to train. \$15.00. Wirt H. Farmer, Tunnel Hill, Ohio.

FREE DOG BOOK—Bark Miller's famous dog book on diseases of dogs, instructions on feeding, care and breeding with symptom chart, 48 pages, illustrated. Write for free copy. Bark Miller Products Corp., 1929 W. Broad St., Richmond, Va.

PERFECTED WHITE COLLIE PUPS for sale. Preston Kestling, Nevada, Ohio.

PERFECTED COLLIE PUPS—Natural Healers. Prices reasonable. Pictures. Hampton Bros., Collie Kennels, Lexington, Ohio.

BAGS

BAGS—We buy your empty bags at good prices. We also manufacture and sell new or second-hand burlap bags. Write us for prices today. Rumsman Bros., 135 Washington Place, Pittsburgh, Pa.

WE PAY HIGHEST PRICES for empty bags. Write for price list. Pittsburgh Bag & Burlap Co., 820 Progress St., N. E., Pittsburgh, Pa.

CHICK AND POULTRY

BARKY CHICKS—8 C. Buff Leghorns, \$11.100. White Leghorns, \$9.90. 100. Harvest Bucks and Hens, \$10.00-100. White Ducks, \$11.00-100. Heavy Mixed, \$9.00-100. Light, \$7.00-100. Free delivery guaranteed. Get my catalogue for special prices on fowls and fowls. Jules Neimand, Mt. Morrisville, Pa.

WHITE LEGHORN hens and males now half price. Thousands of laying pullets. Also baby chicks and eggs. Transmitted, pedigrees, four-week-old, egg bred 25 years. Winners at 20 egg contests. Catalog and special price bulletin free. 1, 100 C. O. D. and guarantee satisfaction. George B. Ferris, 950 Union, Grand Rapids, Michigan.

CHICKS C. O. D. 100 Buff or Buff, \$10.00; 100 White, \$8.00; Heavy Mixed, \$8.00; Light, \$7.00. Delivery Guaranteed. Feeding System, raising and marketing. Free. C. M. Lauer, Box 43, McCallsville, Pa.

Livestock Markets

PITTSBURGH

Cattle

Monday's supply was about 70 carloads. Demand was narrow for all except the cheaper classes, cows, heifers and bulls. Slaughterers assert that the price of beef is seriously restricting its consumption, but it does not appear to work that way with veal. The steer trade was miserably slow, with few buyers in the field, and prices were unevenly lower. One carload of West Virginia Herefords brought \$15.15. They averaged 1,330 lbs. and well finished, appearing much cheaper than those which brought \$15 last week. A few head of nice heavy-weight steers sold at \$15.25, but not many of that kind were offered. Good heavy butcher steers sold at \$14.25, with fair kind \$12.75 to \$13.25, and plainer and lighter ones at \$12.00 to \$12.50. Many of the light steers are not very desirable from the standpoint of either killer or feeder. A few common light steers sold at \$10.50 to \$11. Good fat heifers were wanted and steady, \$13 taking the best here from the bluegrass pastures of West Virginia and Pennsylvania. Fat cows were also steady, a few nice young ones selling up to \$12. These were on the higher order, choice aged cows going at \$10.50 to \$11 and useful killers at \$9 to \$9.50. Canners ranged from \$5.50 to \$6.50, few going below the \$6 line. Bulls were weaker, but still sell well. For good market bulls \$10.50 was in sight, but something choice brought more.

Choice grain-fed steers, 1,200 lbs. or over \$15.25 to \$15.50
Good to choice fat steers 14.50 to 15.25
Fair to good, do. 13.50 to 14.50
Plain heavy steers 12.00 to 13.50
Choice heavyweight steers 15.00 to 15.50
Good butcher steers 1,000 to 1,150 lbs. 14.00 to 14.50
Fair to good, do. 13.00 to 14.00
Ordinary to fair, do. 11.75 to 13.00
Common, do. 10.50 to 11.75
Good light butcher steers 13.50 to 14.00
Fair to good light steers 12.50 to 13.50
Common to medium, do. 11.50 to 12.50
Inferior light steers 9.50 to 11.00
Feeders Nominal
Stockers Nominal
Good heavy bulls 10.25 to 10.50
Choice heavy butcher bulls 10.50 to 11.25
Good heavy bulls 9.25 to 10.00
Fair to good bulls 8.50 to 9.25
Common to fair bulls 7.50 to 8.50
Inferior bulls 7.25 to 7.50
Choice fat heifers 12.00 to 12.50
Fair to good heifers 11.00 to 12.00
Common to fair heifers 10.00 to 11.00
Thin light heifers 8.00 to 9.50
Choice fat cows 10.50 to 11.00
Good to choice fat cows 9.75 to 10.50
Fair to good cows 9.25 to 9.50
Common to fair cows 8.00 to 9.25
Canners and cutters 5.00 to 8.00
Fresh cows, calf at side 50.00 to 150.00

Monday's Representative Sales

No.	Wt.	Pr.	No.	Wt.	Pr.	No.	Wt.	Pr.
1	1100	15.50	9	1145	15.25	13	1330	15.15
2	1185	15.00	22	1250	14.50	15	1145	14.25
3	1102	14.00	5	1112	14.00	17	1106	13.75
14	990	13.50	9	1075	13.00	23	1063	12.75
26	854	12.75	12	888	12.50	9	983	12.50
16	824	12.00	13	917	11.25	5	882	11.00
9	715	11.00	28	762	10.70	11	903	10.50

Cows and Heifers

1	680	14.00	15	874	13.00	1	970	13.00
7	704	12.50	7	704	12.50	8	855	12.50
16	814	12.50	5	960	12.25	2	1265	12.00
1	1020	12.00	1	1070	12.00	6	724	11.50
9	709	11.25	8	697	11.25	7	724	11.50
1	1350	10.00	1	1090	10.00	1	950	9.00
1	1205	9.00	2	1060	9.00	1	960	9.00
1	975	9.00	7	954	8.75	9	794	8.50
1	790	8.50	1	1140	8.25	5	874	8.00
13	928	7.75	12	825	6.75	2	850	6.25
4	700	6.00	11	740	6.00	9	898	5.75
								9.75

Bulls

3	1423	11.35	12	894	11.10	1	1200	10.50
1	1130	10.50	1	1280	10.25	6	1260	10.00
1	1330	9.75	3	763	9.75	1	1290	9.75
1	1240	9.75	2	1175	9.75	1	1130	9.50
1	1270	9.50	1	1300	9.50	1	1060	9.50
2	890	9.25	1	1300	9.25	1	1020	9.00
1	910	9.00	1	1040	9.00	1	970	9.00
2	925	8.60	1	1040	8.50	1	510	8.00

Hogs

Monday's supply was light, around 25 carloads, and good hogs were 50 to 100 higher than at the close of last week. Pigs and grassy light weights were no picnic, and had to sell at unsatisfactory prices. Several carloads of Tennessee pigs and light wags on sale. Good heavy hogs sold up to \$13.50, with heavy mixed \$13.50 to \$13.75 and

handy weights \$13.70 to \$13.80. Light Yorkers ranged downward from \$12.75, going largely at \$12 to \$12.25 for green and half-finished hogs. Pig prices covered a wide range as did the quality, \$9.50 to \$11.50. There should be few pigs on the market with a corn crop in sight, but many growers have failed to immunize and cannot hold if disease appears in the community. Heavy wts., 250 lbs. or over, \$13.25 to \$13.50. Heavy mixed 13.50 to 13.75. Medium wts., 180-200 lbs. 13.70 to 13.80. Heavy Yorkers, 165-180 lbs. 13.70 to 13.80. Light Yorkers, 125-150 lbs. 12.00 to 12.75. Pigs, 100-110 lbs. 9.50 to 11.50. Roughs 11.00 to 11.75. Stags 6.00 to 8.50.

Sheep and Lambs

Monday's supply was 18 carloads, mainly lambs. The few sheep sold on the basis of \$8.50 for good handy wethers, or about the same as in the recent past. Lambs declined sharply last week at all markets, and there was no recovery on Monday at this point. The quality of the lambs was nothing extra. The bulk of the top went at \$14.50 to \$14.75, with culls at \$8 to \$12, largely \$9 to \$11. Medium class of lambs brought \$12 to \$13. There is no business in feeder lambs here so far.

Good to best wethers \$8.25 to 8.50
Fair to good wethers 7.50 to 8.25
Good mixed 7.50 to 8.00
Fair to good, do. 5.50 to 7.00
Common to fair 5.00 to 5.50
Inferior sheep 2.00 to 4.50
Good to best spring lambs 14.00 to 14.75
Medium lambs 12.00 to 13.50
Culls and throwouts 8.00 to 12.00

Calves

Monday's receipts were 900 head. Best veal calves brought \$19 per cwt., with medium class \$14 to \$17 and common \$8 to \$12. Culls and seconds are selling relatively high and choice heavy calves are too.

CHICAGO

Cattle

Chicago, Sept. 17.—Receipts were about 24,000 head. Market steady to a quarter lower.

Common to fair yearlings \$12.25 to 13.75
Fair to good yearlings 13.75 to 15.75
Good to choice yearlings 15.75 to 17.00
Choice to prime yearlings 17.00 to 18.25
Common to fair steers 13.00 to 14.50
Fair to good corn-fed 14.50 to 16.00
Good to choice corn-fed 16.00 to 17.00
Choice to prime corn-fed 17.00 to 18.50
Common to good cows 7.75 to 10.00
Good to prime cows 10.00 to 13.00
Heifers, common to good 8.50 to 11.75
Heifers, good to prime 11.75 to 17.00
Canners and cutters 7.50 to 7.75
Inferior light bulls 8.25 to 9.85
Bologna and bulls 8.25 to 9.85
Fair to choice butcher bulls 9.65 to 13.00
Stockers, common to fair 10.00 to 11.50
Stockers, fair to good 11.50 to 12.50
Stockers, good to choice 12.50 to 13.50
Fair yearling stockers 13.50 to 14.25
Stock and feeder heifers, common to choice 8.00 to 11.00
Feeder and feeder cows 7.75 to 8.75
Feeder, common to fair 10.50 to 11.50
Feeder, fair to good 11.50 to 12.50
Feeder, good to choice 12.50 to 13.50
Fancy selected feeders 13.50 to 14.00
Milkers and springers 10.00 to 135.00
Common to best vealers 16.50 to 18.50

Hogs

Fifty thousand hogs were on sale. Market 10 to 25c higher. Heavy butchers, 270 lbs. up, \$12.75 to \$13.40. Mediums, 225 to 265 lbs. 12.50 to 13.50. Lights, 190 to 225 lbs. 12.50 to 13.50. Mixed packing, 270 to 350 lbs. 11.75 to 12.50. Heavy packing, 350 to 500 lbs. 11.50 to 12.00. Roughs, 300 to 500 lbs. 10.90 to 11.50. Stags, subject 70 lbs. dockage 10.00 to 12.00. Pigs, best grades 10.75 to 12.50.

Sheep

With 32,000 sheep and lambs on sale the market was 25c lower. Wethers, all ages \$7.00 to 10.50. Yearlings 8.75 to 12.50. Western ewes 6.75 to 7.50. Breeding ewes 6.75 to 7.50. Western range lambs 13.25 to 14.25. Native lambs 8.50 to 13.75. Feeding lambs 13.50 to 14.40.

Stock Movement

Receipts for week 60,000
Previous week 44,390
Same week last year 50,557
Shipments for week 18,094
Previous week 20,187
Same week last year 20,187

Hogs

Receipts for week 60,000
Previous week 44,390
Same week last year 50,557
Shipments for week 18,094
Previous week 20,187
Same week last year 20,187

Sheep

Receipts for week 60,000
Previous week 44,390
Same week last year 50,557
Shipments for week 18,094
Previous week 20,187
Same week last year 20,187

Previous week 12,630
Same week last year 20,187

LANCASTER

Cattle

Lancaster, Sept. 17.—Cattle market slow and weak to 25c lower, heifers sharing the decline. Beef steers predominated in the run. The bulk sold at \$12.50 to \$14, with top of \$15 on 1,100-lb. steers. Demand was narrow for stockers and feeders. Bulk sold at \$11.50 to \$13.

Good steers \$14.00 to 15.25
Medium to good 12.50 to 14.00
Common to medium 9.50 to 12.50
Good to choice bulls 10.25 to 12.50
Common to medium 7.00 to 10.25
Choice heifers 12.00 to 13.75
Good to choice 10.00 to 12.00
Common to medium 7.50 to 10.00
Good to choice cows 9.00 to 11.00
Common to medium 6.25 to 9.00
Common to choice stockers 9.25 to 13.25
Common to choice feeders, 300 lbs. down 8.75 to 13.50
Good to choice calves 16.50 to 19.25
Medium 14.00 to 16.50
Common 7.50 to 14.00

Hogs

The market was slow at steady prices. Heavy wts., 250-350 lbs. \$11.75 to 13.50. Medium wts., 180-200 lbs. 12.50 to 14.75. Lights wts., 160-200 lbs. 13.25 to 11.75. Roughs 6.25 to 9.00.

BOSTON WOOL MARKET

The market for wool at Boston was reported as somewhat narrower last week, but with increased activity on the part of a few of the larger mills increased demand for domestic fine wools continues with some call for Australian merinos. Fine territory has sold at a clean basis of \$16 to \$18, and that of fine medium order 95c to \$1. Medium combing wools are relatively scarce and have advanced in price, Ohio and Michigan wools of the better type are held firm at 55c, compared with former sales at 53c. Foreign markets have kept steady, recent sales being supported chiefly by continental buying.

Delaine, unwashed 47 to 47 1/2
Half-blood combing 50 to 51
Three-eighths blood combing 54 to 55
Quarter-blood combing 54 to 55
Low quarter-blood combing 49 to 50
Common and braid 45 to 46
Fine unwashed 40 to 41
Half-blood clothing 44
One-fourth and 3/4-blood clothing 48 to 50c

MISCELLANEOUS PRODUCE

Butter.—Creamery prints, 92 score, 55¢ to 57¢; tubs, 34 to 34 1/2; nearly tubs, 50 to 51c.

Poultry.—Heavy hens, 31 to 32¢; Leghorns, 28 to 29¢; springers, 26 to 33¢; roosters, 18 to 19¢; ducks, 23 to 25¢; geese, 15 to 18¢; pigeons, 40 to 45¢ per pair.

Eggs.—Fresh, select, 42 to 44¢; current receipts, 30 to 34¢.

Potatoes.—New stock, per state bbl., No. 1, W. Va. and N. J., \$2.10 to \$2.15; Pa., \$2.15 to \$2.25.

Apples.—New stock, bu. bskt., Jonathan, \$1.35 to \$1.50; Maiden Blush, \$1.50; Wolf Rivers, \$1.60 to \$1.75.

Cabbage.—N. Y., 100-lb. crate, \$2.25 to 2.75.

Onions.—Per 100 lbs., \$3.40 to \$3.65.

Sweet corn.—Per bu., \$2 to 2.50.

Peaches.—Pa. & W. Va. Elbertas, per bu., \$8 to 2.25.

Apples.—Bartlett's, per bu., \$1.75 to \$2.25.

Grapes.—Champions, per 12 qt. bskt., 40 to 50¢; Concord, per 4 qts., 28 to 30¢.

Baltimore

Butter.—Creamery, fancy, 50 to 51¢; rolls and dairy prints, 33 to 34¢; packing stock, 33¢; Butterfat, lb., 48 to 49¢.

Eggs.—Selected white, 42¢; Md.-Pa. near-by firsts (loss off), 35 to 36¢; nearby current receipts, 34 to 35¢; western firsts, 34 to 36¢; southern, 34 to 35¢.

Philadelphia

Philadelphia, Sept. 15.—The supply of most fruits and vegetables was light this morning and the demand was very light due to the Jewish holiday, according to the Pennsylvania and Federal Bureau of Markets.

With the exception of tomatoes and corn

most commodities met a very slow demand. Apples moved slowly and steadily, house sold at \$1 to \$1.25 per bushel. Wealthy \$1 to \$1.25. Delicious \$1.50 to \$1.75, and McIntosh \$1 to \$1.50. Peaches were in light supply and sold at \$1 to \$1.25 per bushel. Grapes moved slowly at 40¢ to 75¢ per bushel.

Green beans sold at 50¢ to \$1.25 per bushel while wax brought 75¢ to \$1.25. Lima beans were in light supply and sold at \$2 to \$3 per bushel. Beets sold at 2¢ to 4¢ per bunch and carrots at 2¢ to 4¢.

Bullnose peppers sold at 25¢ to 35¢ per bushel, while red peppers sold at 40¢ to 45¢.

Pennsylvania rutabagas sold at 40¢ to 45¢ per bushel, egg plant brought 75¢ per bushel.

Tomatoes met a good demand and sold at \$1 to \$1.25 per bushel while extra fancy brought as high as \$1, with poor to ordinary selling at 35¢ to 75¢. Spinach sold at 50¢ to 75¢ per bushel and white squash at 50¢ to \$1.25 per bushel.

Sweet potatoes were very drab and sold at 50¢ to 65¢ per bushel. Red brought 60¢ to 75¢ per bushel.

Nearly potatoes in 5¢ baskets sold at 40¢ to 50¢ while New Jersey stock in 150-lb. sacks brought \$2 and Pennsylvania round whites sold at \$1.10 to \$1.25 per 100 lbs.

GLIMPSES OF THE FARM MARKETS

Summary.—Markets began the fall season looking rather better in some lines. Prices of livestock, dairy and poultry products continue upward as for some time past. Grain and feeds have been the weak feature, but doing better lately. Hay is higher than a year ago. Fruits and vegetables showed more advances than declines the first half of September, with net gains in potatoes, onions, cabbage and grapes. On the other hand, the increasing fall supply weakens the general market position of many farm products.

Butter.—Prices of butter advanced half cent at the eastern markets in early September, and trade was more active. Operators in general felt that the market was in a sound position at the moment, but nevertheless they disliked the advance, fearing the effect of high prices on consumptive outlets.

Cheese.—The cheese markets continue firm. Trade has been quite active and there has been a general tendency for country prices to advance, and for margins on these prices to be wide enough to be clear indicators of a firm situation, despite heavy stocks in cold storage.

Eggs.—The egg markets have not shown any further change to speak of. Fresh receipts, while heavier than a year ago, are not enough to satisfy the demand, and storage goods are being quite freely used.

Poultry.—Poultry markets are now becoming more active, as fall dressing operations are getting under way. Receipts at the terminal markets are showing some increase and storage holdings, which so far were about the same as last year, are not definitely on the increase, compared with last month or a year ago.

Feeds.—The wheat millfeed situation was weak. Concentrate feeds were quiet and inactive, but some new crop cottonseed meal was being offered from South Georgia points. Hominy feed was weak, but grain feed was steady. Timothy hay markets were firm as offerings of good quality hay were limited.

Vegetables.—Tendency of the vegetable market was toward higher prices the first half of September. There were sharp upturns in onions, cabbage and sweet potatoes and some gains in potato prices. General changes were in line with an upward trend in various other farm products, but partly the rise resulting from lighter local supplies or unfavorable crop conditions.

Carlot shipments of potatoes have increased to 600 and 700 daily. Supplies continue moderate but increasing in eastern markets and liberal in mid-western cities. The preceding let-up in shipments was due to improving the tone of the crop, the accumulation of supplies and the overlapping of market territory. Maine and other northern shipping states are becoming active. Eastern markets appeared slightly stronger in the first two weeks of September, with scattering gains of 5 to 25 cents. New Jersey Cobblers, the leading market line at

several points, ranged \$2.25 to \$1.50 per 100 pounds and New York at one time this month, reached top of \$6 for Virginia. The rise was comparatively light in the eastern markets and by the middle of September range of sales in the large stock. Wet weather in producing sections had reduced the shipping movement, but activity has been resumed.

The rapid advance in onion prices has been a sensational feature in the vegetable market. Rising prices seem to be based on speculative buying for storage and on poor conditions in eastern producing sections. Sales of \$3 per 100 pounds were reported at shipping points in the Connecticut Valley and the Middle West, and at 50¢ to \$3.65 in western New York. Prices were advancing above \$2 in Rocky Mountain shipping sections. Carlot receipts are increasing, likewise the shipments.

Cabbage advanced \$3 to \$4 per ton in eastern producing sections the first half of September, owing to moderate supplies and unsettled crop conditions.

Apples.—The apple markets seem to be holding their own at a very moderate range of prices, mostly \$1 to \$2 per bushel for eastern red fall varieties. Producing sections in the Great Lakes region are 5 cents to \$1.25, but McIntosh sold at \$2.25.

PRODUCE MARKET NOTES

Condition of maturing fruit and vegetable crops ranges from fair to very good in mid-September through the eastern producing sections, says the U. S. Department of Agricultural Economics. It is all too wet on lowland in the Southeast to do dry in parts of the region from New York to Ohio. Potato blight and apple scab are complained of in some areas and a little frost damage is reported in the North. General conditions are perhaps a little better than through August when many truck crops were losing weight as shown by reduced percentages in condition reports for September 1 on green beans, onions, carrots, string beans and cucumbers. Prices on many of these green produce are higher than a year ago, owing chiefly to lighter crops.

Principal low priced lines are potatoes, apples and grapes.

Potatoes.—Recent upturns of 5 to 25 cents per 100 pounds in potato markets resulted from previous lighter shipments and wet weather in producing sections. The slight recovery brought some increase in carlot shipments which now are running at 100 to 150 per day. Prices of eastern varieties ranged from \$1.25 to \$1.50 per 100 pounds in the large cities and a little above \$1 in producing sections. These are about half the prevailing prices a year ago. The tendency is toward steadily increasing shipments at this time of year when the larger main crop producing sections become active in marketing their crops.

Onions.—The onion market continues improving because of unsettled conditions following the rapid advance in prices during the month past and the present unsettled conditions. Dealers seem to have confidence in the situation, having bought the greater part of the production in the leading districts at prices about double those prevailing a year ago. Prices were suggested off a little lately but have held their gains fairly well at a range of \$4 to \$4.40 for good yellow stock in the large eastern cities on jobbing sales per 100 pounds. The strength of the market is reported by the poor crop conditions in the official forecast of September 13 indicating further production shrinkage of one-third compared with last season and one-seventh compared with a year ago, while some such leading states as New York, Ohio and Massachusetts seem to have only about half of last season's output, many of these eastern onions being small sizes and inferior grades.

The West has a better crop than the East and considerable quantities of Spanish onions are likely to appear on the market about 200 carloads of these are due or on the way.

Cabbage prices at two or three times those of a year ago in eastern producing sections are based on the reported falling off in both acreage and condition. The weather forecast would indicate about one-third less cabbage in New York, the leading late crop producer. Cost at western New York producing sections advanced more the past week, reaching \$27 per

ton and general range in the large cities is \$20 to \$45. A reduced output of kraut is likely, because of higher prices for the raw material.

Apple prices seem to be holding their own since the opening of the active season and some varieties sell a little higher at country shipping points. General range of leading fall varieties is 90 cents to \$1.25 in northern producing sections for bushels of leading grade fruit in carload quantities. Buying appears to be starting late in southern apple sections and very little activity is reported, although Virginia has been shipping rather heavily the past week.

Supplies are generally moderate as yet in northern markets, but rather liberal in middle western cities. Eastern Wealthys sell at \$1.50 per bushel in large eastern cities; Maryland and Pennsylvania Maiden Blush \$1.50 to \$1.75; Virginia Grimes \$1.50 in Philadelphia and Washington. The McIntosh variety is scarce this year and early shipments from Virginia brought \$2.25 to 2.85 in New York this week.

Prices of pears have held firmly in producing sections of the eastern states at near \$2 per bushel for good Bartlett's, with demand fair to good. The pear season started rather poorly, but has been giving a good account of itself, the market having been strengthened because of price advances in western producing sections.

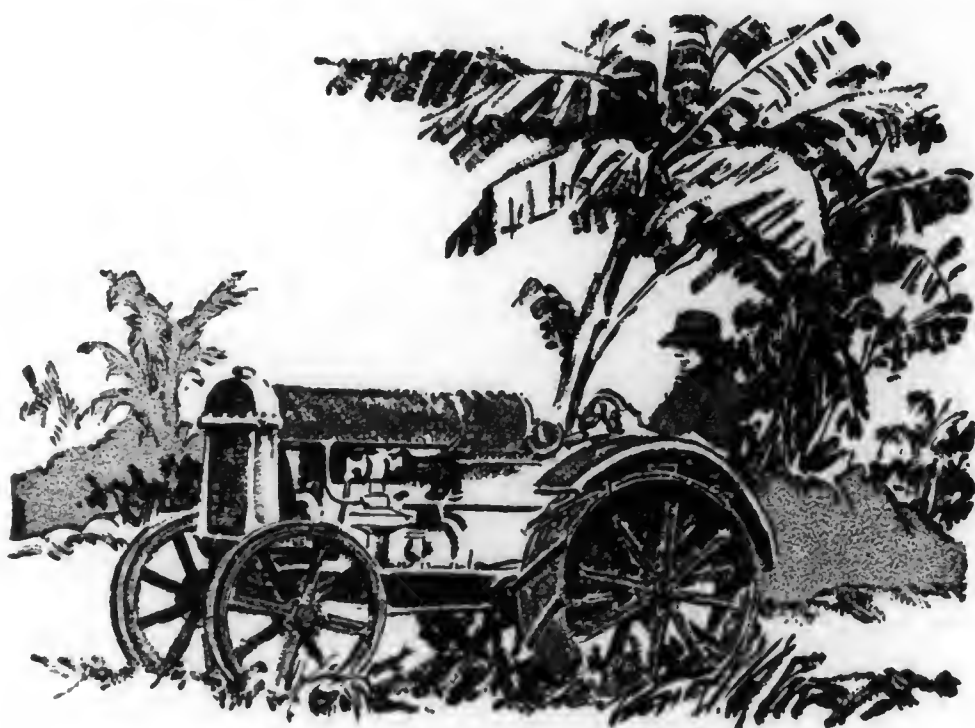
Peach markets are considerably higher than in mid-season and higher than a year ago, with prevailing range of \$1.75 to \$2 for the Elberta in leading eastern markets, most New York stock ranging \$2.25 to 2.50 per bushel.

Grapes are selling lower than a year ago as might be expected because of increased production East and West. Sales in producing sections of the Great Lakes region started lower by about one-third, compared with mid-September 1927. California grapes at \$25 to \$50 per ton are \$15 to \$15.50 lower this season, but have maintained values well around present levels, because of restricted shipments and somewhat lighter production than first estimated.

Oil facts for farmers

(No. 6)

Quality proof from Equatorial Africa



Gargoyle Mobiloil lubricated:—
The first cars to cross the burning sands of the Sahara. (1923)
The first automobiles to travel Africa from North to South—Morocco to Cape Town. (1926)
The first motorcycles to cross the Sahara Desert. (1927)
Major Dagnaux's plane in his flight across Africa—Paris to Madagascar. (1927)
The same Mobiloil which is on sale in your own neighborhood is the most popular oil in hot countries the world over.

Lower costs
You probably use your tractor, your truck and your car more on hot

days than at any other time in the year. Right now you have *real need* of Mobiloil economy.
It is quite common for new Mobiloil users to find their oil consumption lowered from 15% to 50%. They nearly always report substantial reductions in carbon deposits and over-heating.

How to buy
For a season's supply we recommend the 55-gallon and 30-gallon drums with convenient faucets. On these sizes your Mobiloil dealer will give you a *substantial discount*.
Your dealer has the complete Mobiloil Chart which shows the correct grade of Mobiloil for your car, tractor and truck. You are always sure with

The World's Quality Oil
Mobiloil
VACUUM OIL COMPANY

Make this chart your guide
If your automotive equipment is not listed below see complete Mobiloil Chart at your dealer's. It recommends the correct grades for all cars, trucks and tractors, etc.

NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS	1926		1927		1928		1929	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Autocar.....	A	Arc	A	Arc	A	Arc	A	Arc
Buick.....	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Chandler Special Six.....	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler.....	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler 6 cyl.....	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler Imperial 80.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Diamond T.....	A	Arc	A	Arc	A	Arc	A	Arc
Dodge Bros.....	A	Arc	A	Arc	A	Arc	A	Arc
Durant.....	A	Arc	A	Arc	A	Arc	A	Arc
Essex.....	A	Arc	A	Arc	A	Arc	A	Arc
Federal 86, 106, 126, 146.....	A	Arc	A	Arc	A	Arc	A	Arc
U6.....	A	Arc	A	Arc	A	Arc	A	Arc
"X2, T6W, T6B.....	A	Arc	A	Arc	A	Arc	A	Arc
Ford A & AA.....	A	Arc	A	Arc	A	Arc	A	Arc
"T & TT.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Franklin.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
G. M. C. T10, T20.....	A	Arc	A	Arc	A	Arc	A	Arc
T40, T50.....	A	Arc	A	Arc	A	Arc	A	Arc
Garford.....	A	Arc	A	Arc	A	Arc	A	Arc
Graham Bros.....	A	Arc	A	Arc	A	Arc	A	Arc
Hudson.....	A	Arc	A	Arc	A	Arc	A	Arc
Hupmobile.....	A	Arc	A	Arc	A	Arc	A	Arc
Indiana 611, 6111.....	A	Arc	A	Arc	A	Arc	A	Arc
International 33, 43.....	A	Arc	A	Arc	A	Arc	A	Arc
63, 103, 74C, 54DR.....	A	Arc	A	Arc	A	Arc	A	Arc
54C, 74DR, S, SD.....	A	Arc	A	Arc	A	Arc	A	Arc
Mack.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Nash.....	A	Arc	A	Arc	A	Arc	A	Arc
Oakland.....	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile.....	A	Arc	A	Arc	A	Arc	A	Arc
Overland.....	A	Arc	A	Arc	A	Arc	A	Arc
Packard.....	A	Arc	A	Arc	A	Arc	A	Arc
Paige.....	A	Arc	A	Arc	A	Arc	A	Arc
Pontiac.....	A	Arc	A	Arc	A	Arc	A	Arc
Reo (all models).....	A	Arc	A	Arc	A	Arc	A	Arc
Republic 11X, 19, 20, 25.....	A	Arc	A	Arc	A	Arc	A	Arc
"S-25W6, 25-W6.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Service.....	A	Arc	A	Arc	A	Arc	A	Arc
Stearns.....	A	Arc	A	Arc	A	Arc	A	Arc
Stewart 9, 21, 21X.....	A	Arc	A	Arc	A	Arc	A	Arc
Studebaker.....	A	Arc	A	Arc	A	Arc	A	Arc
Vette 15, 15A, 15B.....	A	Arc	A	Arc	A	Arc	A	Arc
20, 20A.....	A	Arc	A	Arc	A	Arc	A	Arc
Willis Knight 4 cyl.....	A	Arc	A	Arc	A	Arc	A	Arc
6 cyl.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
TRACTORS								
Allis Chalmers 12-20.....	BB	A	BB	A	BB	A	BB	A
15-25.....	BB	A	BB	A	BB	A	BB	A
Case 22-40, 25-45.....	BB	A	BB	A	BB	A	BB	A
40-72.....	BB	A	BB	A	BB	A	BB	A
Caterpillar Combine.....	BB	A	BB	A	BB	A	BB	A
Harvester 32.....	BB	A	BB	A	BB	A	BB	A
Cletrac.....	BB	A	BB	A	BB	A	BB	A
E. B.....	BB	A	BB	A	BB	A	BB	A
Fordson.....	BB	A	BB	A	BB	A	BB	A
Hart Parr.....	BB	A	BB	A	BB	A	BB	A
John Deere.....	BB	A	BB	A	BB	A	BB	A
McCormick Deering.....	BB	A	BB	A	BB	A	BB	A
Oil Pull.....	BB	A	BB	A	BB	A	BB	A
Twin City 12-20.....	BB	A	BB	A	BB	A	BB	A
20-35.....	BB	A	BB	A	BB	A	BB	A
Wallis.....	BB	A	BB	A	BB	A	BB	A

TRANSMISSION AND DIFFERENTIAL:
For their correct lubrication, use Gargoyle Mobiloil "C", "CC", or Mobilolubricant as recommended by complete Chart available at all dealers.



Mobiloil

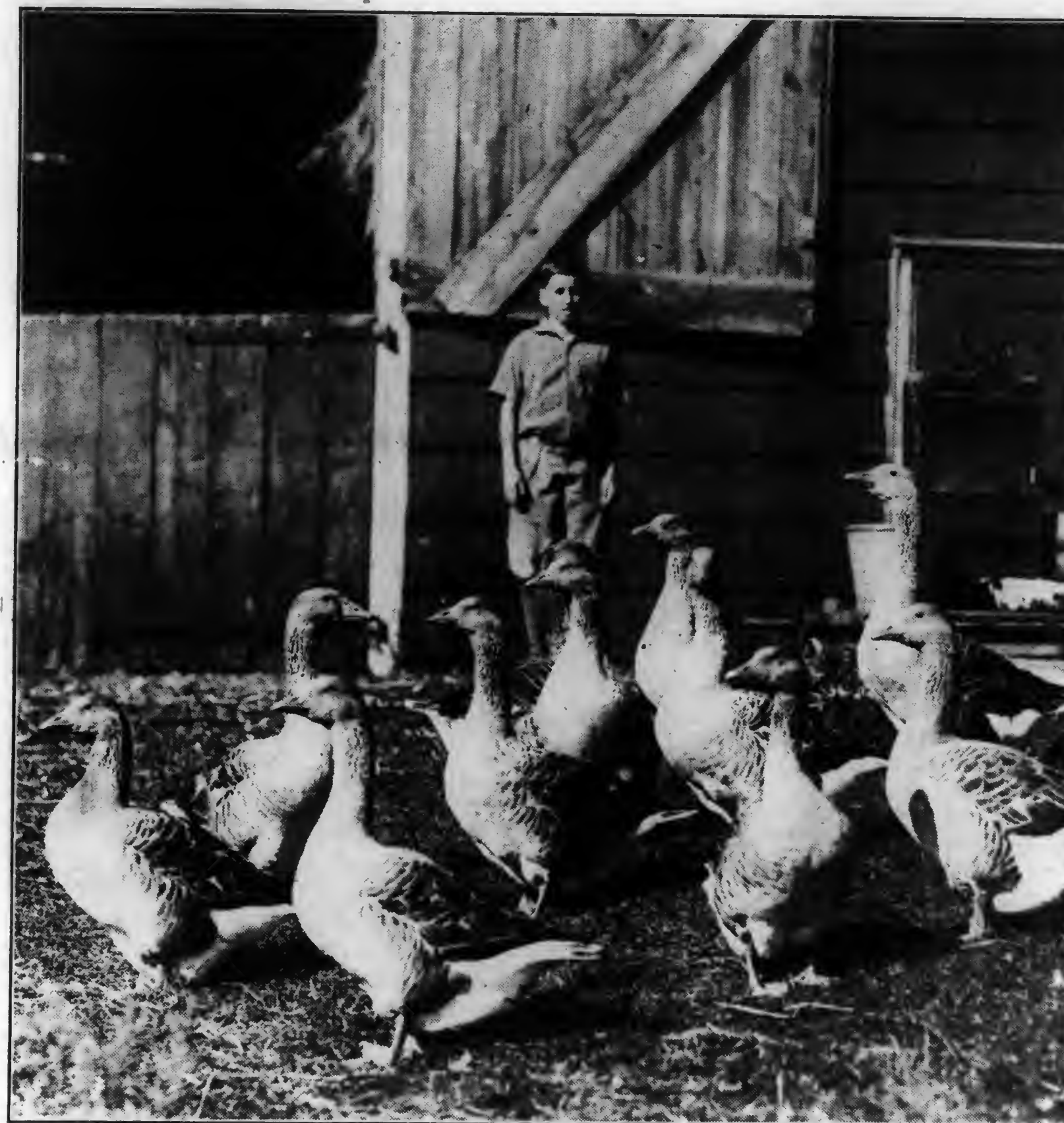
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PENNSYLVANIA STOCKMAN and FARMER

September 29, 1928

Established 1877



Stately if Not Graceful, Geese Never Forget Their Dignity

Pittsburgh

Harrisburg

Philadelphia

Farm Facts and Fancies

By ALVA AGEE

I have a neighbor who works, and her husband does some "ginning around" that does not afford dependable income. The wife gets good wages in an office, and it is not my business that she must provide the greater part of the family income. Two children remain at home while her time goes into bread-winning. It may be that the office work which she learned before marriage is more attractive to her than the work within the home. Anyway, the money is needed.



Contrast the situation of these children, and of the parents, with that found on a hundred thousand one-family farms in this country. On these farms all the family work together, there is a common interest, there is little risk of losing out because such a farm rarely is sold for debt in normal times, and children stay the companions of parents. They learn to work, and they contribute something toward the family income which is only right, notwithstanding all new-fangled ideas about child labor. The work is a part of a wholesome education just as textbook learning is a part.

The Small Farm Will Stay

It is easy to figure that the cost of production is lower on a large area of land than it is on a small farm. It does not follow that small farmers are to be driven out of business. The large area provides crops and livestock. The relatively small area that forms a one-family farm provides farm products, and at the same time a home for an independent man who has small capital, a family and a will to make a living. The home is something extra beyond the house and does not show up in the figures used for comparison.

The amount of the investment, placed at interest, would bring in little income. In the case of any one having only small capital the cost of living must be met chiefly by labor income. Keeping the money in a one-man farm insures a home, and labor that insures a living—too much labor, sometimes, and not so good a living as one wants—and a chance to do things one's own way in this world, which is something worth while. I do not see any form of commercial farming driving out the small American farmer who wants to stay.

Farm Tariffs

More of the land in this country should be in grass so that the area of plow crops would be smaller. Why should we be importing hay from Canada? When an increase in the import duty on hay is asked, how could it be necessary that the Tariff Commission enter into any prolonged inquiry into the costs of production in this country and the costs in Canada? They would not interest us. Canada might show costs nearly as great as ours, and yet be paying the duty and shipping in because she could not market to any better advantage. Anyway, why take time and get into learned discussions?

The point is that the hay comes in, and that is proof enough that the tariff isn't high enough. An expert tariff investigator could be told by a plain farmer in five minutes that the way to keep it out is to increase the duty to the point where it ceases to come in. Why not try it, and leave all discussion for some later period?

Growing Legumes

Manufacturers are increasing facilities for producing nitrates for the soil.

The price should be lower as time comes along. The good in freer use of synthetic nitrogen will come in thrifter plants on most land—there is little that has a full supply of the nitrates. Over against this good will be the temptation to depend less on legumes, and the physical condition of land will grow poorer if organic matter is not supplied. Effect on condition is one of the big factors of value in legumes, though we put the stress so much on the nitrogen.

Safety in maintenance of fertility lies in a high content of vegetable matter. Friendly bacteria need it, and good condition is dependent on it in most farms. I have some friends who do not see that it is necessary to take time for the growing of sods. They have naturally loose soils that stay in good physical condition for cultivated crops. Any big supply of organic material seems unnecessary, and commercial fertilizers furnish the plant food. They make money and need not argue about their methods. This is true in their case—for the present at least—but ninety-five farms out of a hundred have little soil of that sort.

Poverty-Loving Plants

We are told that some kinds of plants like a poor soil. I doubt it. For the time being—which is all the time any one has—I am in an arid country that has some climatic attractions, and am making the acquaintance of some new plants. Recently I bought some acacia shrubs of a variety that serves well as a sort of hedge for one side of the flower garden. The nurseryman warned me that little fertilizer and water were wanted, but I preferred to be governed by old prejudices and fertilized very heavily, and have irrigated freely. The growth is extraordinary—fifteen to eighteen inches gain in height in the two months since these shrubs were taken out of the cans. Those little trees are having the time of their lives.

When we make land rich we give the chance that bluegrass, timothy, clover and other plants want, and when they have the chance they can crowd out pretty pestiferous weeds. When a soil is poor, the so-called poverty-loving plants can stick around, and they take the ground, but they do not like it. Probably we could get an enormous growth of poverty grass by heavy manuring if no better plants were present to crowd it out. Some kinds of plants, like some people, have a fiber that lets them bear up under poverty better than others, but no plant nor person craves it. The man who is in a position to make a field rich sidetracks a good deal of trouble because our best grasses are able to crowd out many kinds of weeds that are a nuisance on poor land.

Our Spokesmen

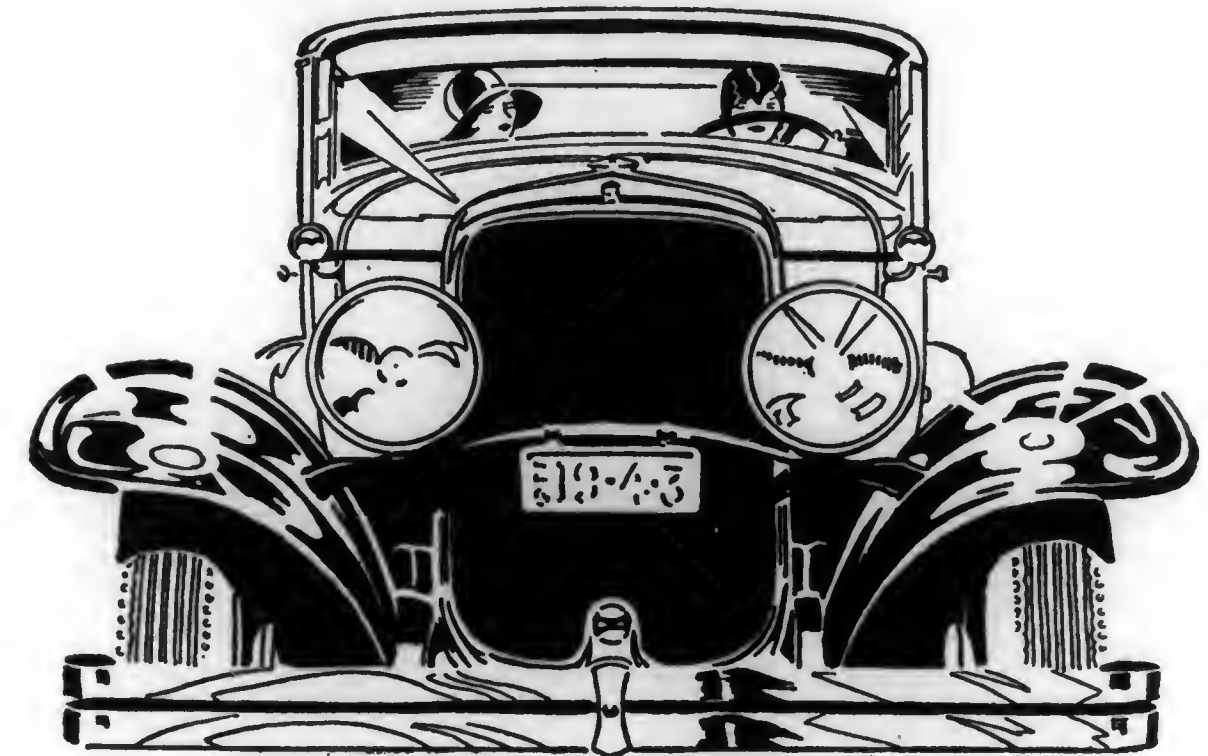
One likes to be informed and naturally reads what some leaders of farm organizations say about the political intentions of their members. It would be safer to wait and see. We need spokesmen for various purposes at various times, but each one will be his own spokesman when the election is held, and that will be early enough for practical purposes. His vote will go for whatever promises the greater welfare for himself and his country, as he sees it. The man who would have it otherwise isn't a very good American.

A Good Word for the Little Farm

Many farm authorities will tell you that the day of the small farms is over. Nothing but large farms, tractors and thousands of dollars' worth of labor-saving machinery are necessary to successfully run a farm. They

De Soto SIX

PRODUCT OF CHRYSLER



New Style

A fresh interpretation of dynamic symmetry; new slender-profile radiator; longer, still lower body lines; balanced color combinations; new arched window silhouette; new bowl-type lamps; new-type smaller wheels.

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Typical Chrysler brilliancy of get-away, astonishing power and pick-up from the new Chrysler-designed "Silver-Dome" High-Compression engine; marked smoothness and quietness at all speeds; unusual economy of gas and oil; new-type internal-expanding four-wheel hydraulic brakes give instant stopping in any weather.

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All that is finest in motor car enjoyment—the flashing getaway, the instant responsiveness, the marvelous smoothness, the brilliant style and colorful individuality which appeal to people everywhere and call forth universal admiration of Chrysler—can now be yours in this popular-priced six-cylinder car.

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(Division of Chrysler Corporation)

Detroit, Michigan

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Sell Rats
WHY
FEED
THEM?**



"In the United States, rats and mice each year destroy crops and other property valued at over \$200,000,000."—U. S. Dept. of Agriculture.

Rats are costly boarders—so costly that building them out with concrete costs far less in the long run than continually feeding them.

**Build Out Rats
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Do the Work Yourself

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Concrete for Permanence

LIME

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It is not too early to write us for prices and get orders placed for your Summer and Fall Lime. The demand on the manufacturers will be very heavy this season owing to the fact that the past open winter and late spring prevented many from buying at that time. A postal card giving your address and shipping point will bring you interesting prices on our high calcium lime delivered at your railroad station.

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HIGH GRADE FERTILIZERS

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READING MEAT MEAL
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READ THE ADVERTISEMENTS TO KNOW WHAT IS BEST AND WHERE TO BUY

How Shall We Vote on the Forestry Bond Issue?

Vote "Yes"

— Says Mr. Pinchot

THE industries, the agriculture, the commerce of Pennsylvania, and her people generally, are facing an extremely serious situation in the shortage of home-grown wood—perhaps more serious than you realize.

It is costing us more than \$100,000,000 a year to buy from other states the wood that we could grow and ought to grow at home.

We are using five or six times as much timber as we ourselves produce. We put more wood yearly into the anthracite mines alone than the whole of Pennsylvania yields, and we can not mine anthracite without it. More timber is consumed in the Pittsburgh district yearly than the whole cut of Pennsylvania, and Pittsburgh can not do business without that wood.

The sources from which we are getting this wood are being rapidly exhausted, and the time is very close at hand when we can no longer import it at any price—yellow pine from Georgia, white pine from Michigan and Idaho, or fir and redwood from the Pacific Coast.

Neither is there any other place in all the world from which we can get the quantities and kinds of timber our business is adjusted to use. That is a large statement, but it is true.

No industry can be carried on, no business can prosper, no man, woman or child can lead a modern civilized life, without wood. We must have it or go under. But in the near future it will be impossible for us to get it unless we raise it ourselves.

There is only one sure way to raise it, and that is to do so on land owned or controlled and protected by the state. The history of forestry throughout the whole world proves this statement. The main purpose of the Forest Bond Issue is to raise the wood we can not get on without—the wood we can not get in any other way.

The opponents of the bond issue advance three arguments. One is that the treasury has at present a large surplus, that the forest lands needed can be bought out of current revenue, and that there is no need for the bond issue.

This argument sounds well, but there is nothing to it. However much surplus the state may have now, nothing is more certain than that it will not be devoted to the purchase of forest lands. We may get insignificant and ineffectual sums, such as the half-million dollars appropriated by the last Legislature, but it is absolutely sure that we never will get out of current appropriations money enough to protect our people against the calamity of the threatened timber famine. Forestry is not in politics. There are too many competing demands for appropriations that are in politics. They will get the current appropriations, and not the forests.

The second argument of the opponents is that there is not land enough available for purchase so that the \$25,000,000 can be economically expended. That is simply not true. I went into the matter carefully and at length while I was at the head of the Department of Forestry, and I assert without qualification that there is land enough of proper quality that can be and ought to be bought under the bond issue.

The third opposing argument is that the \$25,000,000 will be wasted. To this there are two answers—that under the terms of the Constitutional Amendment only \$2,500,000 can be spent each year, and that sum can be spent carefully and well; and that whatever money the state may have wasted, the purchase of state forests has from the very beginning been conducted honestly, economically, wisely, and with admirable results. The net increase in value of the state forest lands hitherto purchased, over and above all they cost to buy and all the money spent on them ever since, is more than \$5,000,000.

The Forest Bond Issue will not be an expense but an investment. What other purpose is there for which the state can borrow money that will actually return in cash not only the purchase price but a large profit besides? If the bond issue goes through the next term, from the Pennsylvania State Forests at the end of fifty years will probably not be far from \$25,000,000 a year, or the total amount of the present bond issue. And under the law that will go to the common schools.

The Forest Bond Issue will not be a liability but an asset. The growth of the forests will repay all it costs to take care of them and a large profit in addition. This bond issue will mean less taxes, not more taxes. Keep that in mind.

The Forest Bond Issue will not be a loss but an insurance against loss. There is no other purpose for which money can be spent in Pennsylvania that will stand in the way of so great a calamity as the coming timber famine and produce so large a crop of future prosperity as the Forest Bond Issue. And do it without costing our people in the end a single red cent.

All the people of the state without exception will profit from it. The farmer, the manufacturer, the worker, the railroad, the average citizen will get the wood without which they can not do business or prosper.

The hunter and the fisherman, and

(Continued on page 17.)

Vote "No"

— Says Mr. Baldwin

ANYTHING that I shall write relative to the proposed Forestry Bond Amendment will be done by one who has been very much interested in the question of reforestation from the time of its inauguration in Pennsylvania by Doctor Rothrock, whose memory is cherished so highly. The writer has always been in thorough accord with the state acquiring more waste lands and carrying on an adequate program of planting.

It so happens that the state owns more forest lands in Potter than in any other county and has acquired more in this county under recent purchases. The people of my district have always been very much interested in the question of reforestation and from every angle the writer would naturally be greatly interested, as our section of the state offers wonderful opportunities for hunting, fishing and growth of forests. I have been brought up in the midst of the strongest kind of sentiment on the part of sportsmen and others in favor of these important problems and have taken an active personal interest from the beginning, having planted many thousands of trees.

The problem that will be before the voters in November is not one of reforestation, as such a policy has been fully established and determined upon; but rather a plan by which further tracts of land may be acquired by the Commonwealth and the best method of financing such purchases.

There is being submitted to the voters an Amendment, being Number Three of those that will be voted upon this fall, which proposes to amend Article Nine of the Constitution of the Commonwealth of Pennsylvania by adding thereto Section Sixteen which authorizes the state of Pennsylvania to issue bonds to the extent of twenty-five million dollars for the purpose of acquiring land in the state for forest purposes.

It is important for the reader to remember that no part of the funds to be raised can be used for any other object than the acquiring of waste lands and the examination of the title of said lands. It will be the voter's duty to determine whether a bond issue is necessary and the best methods of meeting the situation.

It has been our firm conviction from the beginning that this important question could be met in a much more advantageous way and at a very much less cost to the state and taxpayers by a method of paying as we go, and for that reason I have earnestly urged for the past six or eight years another plan which, in my judgment, would save the state millions of dollars and accomplish the same end without the least prejudice to the problem of reforestation; and for this reason, in the exercise of my duties as I see them as a legislator, I have consistently opposed this bond issue and urged the adoption of measures that I feel certain will fully meet every requirement in a better way.

It must be kept in mind that from 1898 to the first of June, 1927, the Commonwealth of Pennsylvania acquired by purchase 1,131,611 acres of land at the average cost of \$2.26 per acre, or a total outlay of \$2,599,237; that the last appropriation which was made by the state for the purchase of waste lands was in 1919 when it appropriated one hundred and thirty thousand dollars for the purchase of lands and six thousand dollars for surveying the same. After 1919 the policy of making appropriations for the purchase of forest lands was discontinued until the Legislature of 1927 appropriated five hundred thousand dollars which was made available June 1, 1927.

It seems that from 1919 no effort was made on the part of the Forestry Department to make appropriations for the purchase of forest lands and the Department also stopped the planting of all seedlings on forest lands. When this course was adopted it was considered by very many the greatest step backward that the Forestry Department ever had taken. One of the seeming reasons for this action on the part of the Forestry Department was the conception of a vast bond issue, and this course seems to have been adopted as a likely method of helping to create sentiment for such a bond issue.

If the former method of purchasing had been followed from 1919 and a reasonable appropriation made each biennium for this purpose most of the waste lands in the state would have been acquired at a very low price and a comparatively small amount of land would now be offered.

In recent months the state has acquired about one hundred and seventy-five thousand acres of land at a cost of a little more than two dollars and fifty cents an acre and the lands purchased have been among the most desirable as they, in very many instances, have a splendid second growth on them and in some cases quantities of virgin timber. These purchases have been made also in the face of the fact that a bond issue was being proposed in an amount that would be adequate to pay several times the price that has been accepted for some of the most desirable lands in the state which

(Continued on page 17.)



GIFFORD PINCHOT



SENATOR F. E. BALDWIN

With an American Editor Abroad

Small Farms Flourish in Northern Ireland

By E. S. Bayard

AS stated in an earlier letter adequate description of the Giants' Causeway is impossible. But it should be said that the greatest of all architects and builders has cast up there 40,000 stone columns which are as regular in form as if designed by the human mind. Only one of these columns has three sides, only three have nine sides, the rest having either five or six. They vary in length or height, at least in what is visible, as well as in diameter, but are fairly regular within their several groups. The top of one column, high on a cliff, was shot off by the last ship of the Spanish Armada, being mistaken for a part of Dunluce castle not far distant. That castle, a stronghold of the middle ages, is now a ruin and sheep are now folded where mailed warriors once assembled.

The people of northern Ireland are largely of Scotch descent, of the Saxon race. As the Scotch-Irish settled a large part of western Pennsylvania and eastern Ohio I saw everywhere the names I had known all my life, not merely of families but of places, for in the new world they gave their towns or townships the names of their homes in the old. I cannot begin to give examples, for they are too numerous, but when three or four familiar names are in sight at one time the traveler is impressed with the influence of this bit of the old world on the new.

A Noble Race

The Scotch-Irish sent to our country many fine men and the ancestors of many distinguished men. The list of our Presidents is as good an example of this as any, perhaps, though it includes only a few names. Andrew Jackson's family came from Carrick-Fergus, county Antrim. From the same county came the ancestors of William McKinley and Chester Alan Arthur, whose grandfathers were Gaven Mac Arthur of Ballymena. The family of James K. Polk came from county Londonderry and that of James Buchanan from county Donegal. Woodrow Wilson's grandfather was a printer at the village of Dregall near Strabane in county Tyrone. Northern Ireland claims also the family of Andrew Johnson, and the families from which came the mothers of Grant, Cleveland and Benjamin Harrison.

We drove into Strabane, which has another representative in American history than Woodrow Wilson, John Dunlap, the founder of the Pennsylvania Packet, the first daily paper in the United States. Dunlap was an American patriot during the Revolution and became printer to Congress, as such printing the first copies of the Declaration of Independence. A few lines above I mentioned Ballymena. There was born Alexander Campbell, founder of a sect and of Bethany College in West Virginia.

Cane Poles and Sea Fish

This little corner of the world was a prolific mother of men, and our list would be too long if we should attempt to name them all. We drove through the village whence came the family of Armour and thought of Ogden Armour, who parted with his vast fortune to maintain the honor of his name. All through this northern country are fine churches, usually apart from the villages or on the edge of them. It would be interesting to know the relation of these to the influence of the Scotch-Irish race in America, or to such acts as that of Ogden Armour, but some things are beyond exact definition.

We stayed all night at Portrush, a summer resort on the northern coast, and the town was full of visitors. It has the sea on three sides, and naturally one of the principal diversions is fishing. The popular way is to fish off the rocks along the sea with long cane poles, though a few go out in boats with handlines. I met a fisherman, who turned out to be the leader

of the cane-pole brigade, a dealer in tackle and bait. He showed me a bait which he had invented and was manufacturing for sale to the tourists. It was a small rubber eel, green in color, but he makes use of more than one color.

Beef Cattle on Small Farms

I saw several fish taken on this little eel, the inventor of which was advising the fishermen on the rocks. Two of these with whom I talked were from Edinburgh. They were on vacation or holiday, fishing with cane poles and rubber eels for sea fish, when right near their home town they could fish for trout with light tackle and flies. They had heard of Loch Leven trout but had never tried them. They were jolly fellows as most fishermen are, and I stayed with them in the long northern twilight until ten o'clock. Fishing was not good, but they were proud of the few they got—others had not caught so many.

The farmers of northern Ireland are not unskilled laborers. They must and do make everything count on their little farms, and they appeared to me to be doing some mighty good farming on their diminutive fields. Practically all the cattle are of Short-horn and Angus blood, the latter predominating in recent years. No Herefords were seen and only a few Holsteins and Jerseys. Few cattle are fattened, most of them sold as two-year-olds to richer grazing regions in Ireland and England to be finished on grass. Small flocks of sheep are kept and goats wander about the rocky and brushy places.

The donkey is a mighty useful animal, costing little, eating little and hauling or carrying incredible loads for his size. The horses are not quite so large as on English farms nor are there so many of them. An occasional yoke of young oxen is seen, none very large or old. Quite a change is coming over the poultry of the country since eggs are all graded and sold by weight. The tendency is now toward Wyandottes or other good-laying larger breeds and away



Native Strains of Clover Seed Give Best Yields

IN comparative tests with one native and three foreign strains of clover made in cooperation with the College of Agriculture, Fred H. Smith of Harrison county, West Virginia, received a yield of hay from the native variety which was more than nine times greater than that from the lowest yielding foreign strain. Like results were obtained in similar tests in six other counties.

The native strain on Mr. Smith's farm yielded 3,700 pounds of hay per acre. French production, 1,850 pounds; Italian, 800; and Yugoslavia, 400. In support of the results obtained in the recent experiments is a consistent increase of average acre yields for clover noted in census figures for West Virginia, much of which is attributed to the use of native seed.

Believing that the adoption of native clover brings greater returns, D. R. Dodd, Agronomy Department, College of Agriculture, has taken the census figures and estimated the actual value of the increased clover yield on the 379,000 acres grown in this state, which may be realized merely by planting native rather than foreign seed.

The average acre yield for the state in 1900 was 1.04 tons. In 1926 it had reached 1.32 tons, and in 1927, 1.55 tons. Favorable seasons were doubtless responsible for a part of the increase, but experiments have shown that at least a one-half ton increase may result from better seed.

Attributing one-half of the increased average yield, as shown by census figures, to season and the remainder to adapted seed, the increase for the total acreage of the state due to improved seed is 94,750 tons for a year. Valued at \$10 per ton, the increased clover yield will bring \$947,500 additional profits to farmers of the state. This sum is many times the amount spent for extension work in the state each year. H. G. STURM

from Leghorns. Several fine flocks of Rhode Island Reds were noted along the way.

The fuel of Ireland is peat, which is incipient coal and which burns to a small ash, giving out a pungent, pleasant odor. I had supposed that peat bogs were always on the low lands, but many of them are on the almost barren hilltops, where depressions have held the water and created the peat. It is cut out of the bog with a peculiar spade which carries out a chunk about the dimensions of an ordinary brick but nearly twice as long. These chunks are stood up on end, the tops together, to dry and then are piled up like cordwood. Peat cutting and hay-making appear to be both in season as we go about the latter part of July and both under some difficulty in a climate that gave us eleven showers in one day's drive of about 100 miles.

This reminds me that one does not drive so far in a day in Europe as he does in America even if he does nothing else than drive. The roads are good enough in surface to make speed, but they are full of curves, often bordered with hedges, the by-roads are narrow, and villages are more frequent than in most parts of our own country. The man who hires a car in Ireland usually pays extra if he travels more than 85 miles a day, though we were allowed 100 miles without extra charge. Comparatively little machinery is in use on these small farms, but mowing machines are common though the scythe and the grain cradle are too. A splendid crop of hay is being harvested, and the little pastures carry a large number of animals considering their area, the climate keeping the grass always green and growing.

First Parish of St. Patrick

At Clocher, which was the first parish of St. Patrick, I had an interesting talk with a farmer who operates 130 acres. He had bought his farm in three tracts and is paying for it on the installment plan. The price of two tracts was agreed on by the landlord and himself; that of the other was appealed to and adjusted by the court. He thinks that Irish farmers who know their business are doing fairly well, making a living and paying for their farms, but he says they must be both industrious and economical. The fact that they own their homes and farms keeps them steady and makes them feel independent. They don't have many luxuries but they are living comfortably if modestly.

He said that a native of that place had recently returned from America with an automobile costing £1,600 and a "wad" of £5,000 which he was trying to spend in one visit. He named this lavish spender and asked if I knew him. It appears that the native son had learned to make whisky in Ireland and had practiced his art to such advantage in dry America that he could go back to his old home and become the wonder of the county. I truthfully said that I didn't know the distiller, but I don't think I was able to make my Irish friend understand how so much money could be made by a violator of the law and he remain out of jail.

Favors Fall Plowing

MY first experience in fall plowing was in trying to clear a piece of ground that was getting badly infested with witch grass. Following suggestions from my state experiment station I plowed this ground late, after my fall work was done, setting the plow so that it turned the furrows up on edge at an angle of 45 degrees, instead of turning them over flat. Where the grass was thickest we went over the spots with potato forks and got out a good percentage of the roots, which were burned as soon as dry.

When we came to fit this ground for planting in the spring, using a disk harrow first the length of the rows and then at an angle diagonally across the field, and after that a spring-tooth harrow, we had a first-class seed bed. I also had noticed that the spring rains did not run off this piece so much as they did on the bare unplowed ground. Another advantage of fall plowing just before hard freezing sets in is that many grubs and worms are carried up near the surface where they are killed during the winter.

A READER.

Do Chain Stores Threaten Markets?

Cooperatives Discuss Question at Meeting

By R. B. Thompson

AS may have been remarked some million times before, this is a big country, with many diverse interests. Farm problems on the Pacific Coast may, for example, differ wholly from farm problems in Indiana, Ohio, Pennsylvania, or other east north central states. But it was the writer's experience to observe recently, during the pilgrimages and sessions of the American Institute of Cooperation on the Pacific Coast, that one subject seemed to interest all the delegates from the thirty-one states and three Canadian provinces represented.

If you wanted to "start something" just mention "chain store". That was usually enough to call a half dozen or more delegates to their feet, all trying to talk at once.

So one afternoon, while we were in session at the University of California, Berkeley, a discussion period was given over to "What Shall Be the Attitude of the Farm Cooperative Toward the Chain Store?" A. V. Swartout, of the United States Bureau of Economics, kept the discussion within bounds.

Cannot Be Ignored

Paul Armstrong of Los Angeles, assistant general manager of the California Fruit Growers' Exchange (the "Sunkist" citrus fruit cooperative), said that of the 400,000 groceries in the United States at present 68,000 are chain stores, and these chains make one-third of all grocery sales. Therefore, he doubted the wisdom of some farm cooperatives which have steadfastly refused to sell to the chain stores. However, he admitted that it was exceedingly difficult to deal with them. The orange people, for example, have found them insisting on large deliveries of oranges in uniform sizes.

"Unfortunately," he said, "fruit doesn't grow that way. Some seasons we will have a surplus of small oranges; other seasons a surplus of large oranges." So their organization has encouraged the chains to buy at the public auctions and from jobbers rather than direct from the Exchange. However, they are given no advantage in price over other dealers.

It was claimed by one speaker that the sales organization of the big Land o' Lakes creamery cooperative in Minnesota gave the chain stores a three cents lower price per pound on butter than independent retailers. He claimed also that the chain store business of this cooperative had been very satisfactory; that the buyers were showing a tendency to demand better quality and that the stores were pushing the Land o' Lakes brands.

Some Cooperatives' Experiences

John Lawler of San Francisco, general manager of the Poultry Producers of Central California, said his organization sold to the chains at the same prices given to other wholesalers, the chains being given a wholesale classification. They had found, however, that the chains were not disposed to show much cooperation in pushing the Producers' brands. C. W. Hibbert, Los Angeles, general manager of the Challenge Cream and Butter Association, felt that the dairy industry generally was adversely affected by chain store methods of selling. He cited their tendency to undersell, even sometimes at a loss, the independent dealers who had purchased dairy products from the same cooperative.

In the general discussion it was brought out that there seems to be a tendency on the part of some chain store groups to ignore the farm cooperatives entirely and go into the packing and processing of foods, buying direct from unorganized farmers or

from small independent plants. On the other hand, several speakers declared that there is a tendency on the part of the better established chains to get away from low-priced goods and private brands and to push the sale of standard, advertised brands. The apple cooperatives have found that the chains favor the boxed apples over barrelled apples, and want them of uniform size in the box; that the average sale of the chain grocery to the housewife is 25 cents worth of apples at a time.

Secretary C. W. Holman, of the National Cooperative Milk Producers' Federation, Washington, D. C., told of studies made by his organization of costs and methods of handling milk in chain stores. He expressed the opinion that many of the chains did not actually know their costs on this commodity. He said there was a decided tendency on the part of the chains to refuse to follow the up and down trends of the fluid milk market, and also a tendency to deal with unorganized dairy farmers or small creameries. He agreed with Mr. Hibbert that the chain store's methods of handling dairy products threatens a complete demoralization of the dairy industry, which has already happened in certain sections of New England, due directly to this cause.

It was also brought out that the potato market is sometimes seriously demoralized in a community by the tendency on the part of chains to sell at cost or even considerably below, the loss being charged to advertising. One delegate also charged that they frequently sold inferior potatoes or varieties unsuited to the locality for seed in the spring months in potato growing sections.

Convinced Silo Pays

The owner of this new silo just up has been feeding cattle and lambs for thirty-five years without silage, but erected his first silo this season, saying that he is convinced his neighbors with silos get more economical gains than he has been getting on straight dry feed.

H. D.

serious problem in obtaining sufficient capable managers and directing personnel.

Diversified Farming

A SHORT time ago an elderly neighbor started for the village store with a week's accumulation of eggs. The roads were impassable, so he went on foot. The basket was heaped full, and although progress was slow, all went well until he came to a rail fence. Just as he was in the act of climbing over, the top rail broke and the result was disaster. Two baskets are better than one, but too many baskets are detrimental.

So it is with diversification. While the land should not all be planted to one crop, it is possible to become engaged with too many crops, and some will be neglected and prove unprofitable.

A few years ago, in this locality, haystacks were a common sight. Nowadays they are seldom seen. Commercial hay, failing to return a profit, has been almost abandoned. Sweet clover is taking the place of timothy and is increasing the fertility of the soil. Instead of ten horses and three cows, now

many farmers have a tractor, four horses and cows. Soil that formerly produced timothy for the commercial market is now producing legumes and dairy cows. The tractor has lessened the amount of horse chores and the farmer is drawing a profit in the milky way.

The ideal farm is the one that turns the raw material into animal products and returns the fertility to the soil. Farms that produced commercial animal products should have a steadily increasing fertility. Varying cash crops adapted to the locality prevent the eggs from all being lost at once. Growing cities demand an ever increasing amount of animal, fruit and vegetable products. Seek for special markets and with the sow, the cow and the hen build up a profitable diversification. S. H. GREEN.

The West Virginia Public School System

IN reply to A. J. Legg's article about "The West Virginia School System," I would like to state that he is right when he says I am afraid of ground but wrong when he says I am afraid of the people vote on the question of length of school term. I would like to see the people vote on it. I who have children in school or who realize the children are the best crop raised and have a right for the safety of this great nation of ours in the future would vote for an eight-month term of school. All those who place the almighty dollar first and don't care what happens to our nation in the future don't have any children to send to school worth of course vote for the least number of school months possible.

West Virginia used to have a system that even ten years the voters must vote to have any school at all, and one district voted not to have any school. That was in 1922, and had it not been for the State Department of Education the children would have had no school at all for ten years. In 1923 the Legislature enacted a law whereby school was made permanent and not necessary again to vote to have schools.

School and Road Money

We do not have much use in northern West Virginia for the compulsory school law, and when we do have occasion to use it we have no trouble enforcing it. Some patrons even say the age limit should be raised to 18 years.

In talking with over one hundred patrons one has objected to an eight-month school term and nearly all heartily approved even a longer term. Mail carriers go every day and if a parent needs child at home to help he could send a letter or telephone to the county superintendent for a permit.

Mr. Legg doubts my statement in regard to road and school taxes. All any one has to do is to read the open records of financial statements published in each county at the end of the fiscal year and the fact will prove itself. Mr. Legg says that the use of the roads pay the taxes for the roads by paying gasoline tax and tax on trucks and autos. He did say anything about the direct bond levy of which we are paying 49 cents on the hundred in our district, 30 cents county and district road funds in addition. Only 25 cents out of every dollar raised by license on autos and gasoline ever gets to the road. The balance goes for salaries, blueprints, horses, etc. the same as the other road money.

Is it good argument to say that the attendance school should drop just because children get tired of going to school? This is the patrons' fault and not the schools. Mr. Legg says the state director



Nothing adds more to the appearance of the farm than an attractive entrance. This concrete driveway is on the farm of Wm. Z. Martin, Lancaster county, Pa.

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shows that a number of schools have an enrollment of only five or six pupils for the entire term. This is true, but does not one child have just as good right to school advantages near his home as another? Maybe that small school with five or six has a boy or a girl who will be worth more to the nation in the future than the school with five or six hundred pupils.

Mr. Legg's statement about the State Educational Association being a grafting system is all wrong. I have been a member for ten years and we must pay our own expenses while attending the Association. Nicholas county is the only county I know of in the state that takes the enrollment fee for the Association from the teachers' first pay.

Our school system is economical, but it is not perfect. It is being improved each year, but it should provide some kind of compulsory education for some adults who are so old-fashioned and set in their ways. C. B. ALLMAN.

Marshall county, W. Va.

PENNSYLVANIA FARMER

A Handy Loading Arrangement



A MOST convenient loading arrangement is in use on this Kansas farm. Many pure-bred animals are sold from this farm annually, especially Shorthorn bulls. The big barn proper is flanked on the west side by a roomy open shed opening on the south, and at the west end of the shed is a strong pen as large as the shed is wide. A very substantial loading chute is placed next to the shed, and is provided with a gate at the lower end so that animals can be confined in the pen and driven up the chute into the wagon or auto truck, at the pleasure of the farmer. Animals to be shipped can be confined in the pen and the trouble of rounding them up and chasing them over the farm is eliminated. The chute is built strong enough to load an elephant, the legs being portions of telegraph poles, and the floor of two-inch lumber cleated with two-by-four lumber.

DAVID GRAY.

How We Escaped French Peasantry

By Walter Jack

COMMENTING on French occupation of western Pennsylvania, the Ohio valley and the Middle West, a prominent attorney and historical authority called the writer's attention to the strange romance of little things in this history of a nation and the world, particularly agricultural history.

Conceive Pennsylvania, Ohio, West Virginia and adjoining states wiped from the map. The physical topography of the country might yet be the same; strange towns and cities with names in another tongue might appear on this map. Another race, Latin in origin, would have cleared the farms, reduced them to cultivation. Breeds of cattle and sheep would have been different, and even horses. Perhaps the agricultural and industrial progress might have lagged. The language of the courts, the schools, the press, and of life would have been a foreign tongue.

A Fateful Hour

This may seem fantastic, but such was the current of history, and such the power of a mere incident in the every-day experiences of an early explorer. It prompted the great historical situation preceding the American Revolution, and its effect on the settlement of the Ohio valley and the West is as much agricultural history as political. The acts of this drama of history are staged on the shore of Lake Champlain, in the Finger Lake region of New York, down the Allegheny river to Pittsburgh, with the Mississippi valley and the great plains' states in the background.

In the interior of New York state are the beautiful Finger Lakes. These bear the names of the Indian tribes of the great Iroquois confederation. These tribes were firmly bound together for offense and defense. Their influence reached from Canada to Georgia. They were known when the white men came as the Five Nations, and later the Six Nations. Their agriculture was largely cooperative. Vast fields of corn were planted and tended, principally by the women of the tribes. They had apartment houses of poles and logs, and they lived in considerable villages. Their agriculture had reached the highest state of development on the American continent up to the nineteenth century. Tobacco, beans, squashes, pumpkins, gourds, melons, potatoes, a variety of sunflower, were field crops, in addition to great areas of flint corn.

There were two domestic animals. One was the dog, which led an easy life, although used on the sled. The other domestic animal was the wife. Yet the old women among the Iroquois were entitled to some degree of suffrage. In council they might suggest the suing for peace. However, the

proress of this confederation was so great that another century might have made them rulers of the North American continent, east of the Rockies, and the struggle between the white and the redskin much longer drawn out.

In 1608 Champlain participated in a battle. The Iroquois and the Algonquians, or more correctly probably the Mohicans of the Algonquians, were engaged in their pastime of warfare. Champlain's firearms inspired a fanatical frenzy in the Iroquois. The Five Nations had their secret societies, and from one to another the story was circulated. It was enlarged upon. The noise, the fire, the fatal wounds with little mutilation were told and retold as far west as the Iroquois influence extended, to Toledo, and south to the mouth of the Scioto. French penetration southward from Canada and southwest from Lake Champlain near which the battle took place, was fatally delayed. A more fateful hour than Waterloo or the Marne.

French vision foresaw the necessity of consolidating her far-flung possessions from the Arctic to the Gulf. The Five Nations decreed the French shall not pass. Devout Jesuits sought through kindness and sacrifice to win the friendship and conversion of these nations. Those who crossed to the bounds of New York state were captured and suffered the horrors of martyrdom. A few escaped crazed, terrorized and hopelessly crippled.

An Impressive Agriculture

The Five Nations formally submitted to the English crown at a convention held in Albany in 1684, and in 1807 the French leader Jumonville with 1,000 French and some western Indians penetrated the Finger Lake region. The French records of this spectacular and ineffectual raid are to be read in the archives of the Canadian government. The invasion 79 years after Champlain's battle fired the burning anger of the grandsons of the braves. An Indian girl, sent and tottering, was captured. An Indian girl was taken by the French expedition and tortured to reveal the whereabouts of those hid in the woods and hills of central New York. The military records show that one million two hundred thousand bushels of old and new corn was destroyed. Their villages and community houses were burned, and a cooperative plum orchard of fifteen thousand trees was uprooted, such was the magnitude of the agriculture of these nations.

"They shall not pass" was the decree. The sons and grandsons of those soldiers who raided central New York were the men who made the final endeavor to consolidate French power in America. The fringe of English colonies along the Atlantic

coast looked beyond the mountains. The French saw their overlapping claims. The treaty of Aix la Chappelle caused traditional enemies, France and England, to take to the inland. A party of 250 French and Indians were dispatched to penetrate the western lands of the Five Nations. They arrived at what is now Barcelona in Chautauqua county, New York, in July, 1748, a hundred and forty years after Champlain's battle. Six days were required in cutting their way across to Lake Chautauqua.

The "Beautiful River", the Ohio, was more a myth than a reality. Six plates were buried along the water route, one at Warren, Pa., one at the Pictured Rock below Franklin, one at Pittsburgh, and others along the Ohio. The expedition reached Sandusky, Ohio.

An Early Migration

Five years later the rivalry became intense. French officers and a French engineer were dispatched from Canada to fortify this route and build a portage from Lake Erie to Chautauqua Lake. The French engineer Le Mercier arrived a few days in advance of the party of the veteran Captain Marin, and the point was declared unsuitable.

The shores of Lake Erie were searched by Le Mercier, who returned three days later telling of the harbor, now Erie, adequate for all purposes. In April, 1753, the block-house was started, the road over the ridge and through the swamps to Waterford, Fort Le Boeuf, was constructed. Twelve hundred soldiers were stationed at Erie, one-half that number at the end of a bottomless trail of mud through the woods at Waterford. These were starving and deserting. The road to Franklin was better, and three thousand people passed through Erie during that summer 155 years ago, traders, priests, trappers, soldiers and pioneers.

Hundreds of people and scores of family names on farms of western Pennsylvania date to this pioneer migration. The surveillance of the French by the colonists was keen. The French arrived at Fort Presque Isle in April, and Washington reached Waterford in December of that year. His historic journey is known to every school boy and girl. Washington beheld on his arrival in those cold, bleak December days fifty bark canoes and seventy-five boats, drawn up on the banks awaiting the breaking of the ice in the spring that the fortification of the junction of the Allegheny and Monongahela might be established.

A Friendly Warning

At the convention of colonies held in Albany in 1754, the Iroquois, staunch friends, and loyal to the colonists and English, warned them that the French would drive out every Englishman. Benjamin Franklin appealed in his paper for concerted action. His wood cut of the dismembered serpent, crude as it was, bore the inscription, "Unite or Die". The school histories take up the story. The French and Indian War, the Revolution, the progress of events, all inconceivably ponderous and far-reaching, are common knowledge.

The sequence of historical events are frequently overlooked, but when we consider them with their relation to each other and to the present it is apparent that events which now appear unimportant actually were major influences on the present. There was certainly a considerable penetration of western Pennsylvania by the French prior to 1753 and their lines bent strongly westward.

How secure we are today in our homes, our towns, how great are our comforts and conveniences, compared with the past. How inconsequential our troubles, compared with the trials and anxieties of the pioneer.

WALTER JACK.

Method of Curing Alfalfa Affects Vitamin Content

SINCE the manufacture of alfalfa hay by the heat-drying process has become common, it is interesting to note the differences in the vitamin content of hay made by different processes.

Green alfalfa is, of course, an abundant source of Vitamin A. Dried by heat in a drying machine the Vitamin A is preserved to a large extent. Biological tests on machine-dried alfalfa hay show a much higher Vitamin A content than that of hay produced in California or Colorado which has been dried in the sun. The inference is that the sun drying has destroyed the Vitamin A.

On the other hand the sun-dried alfalfa hay is high in Vitamin D, while hay dried in the dark, as in the machine, is very low in Vitamin D. Evidently the Vitamin D is derived from the sunlight in the drying process.

It is important therefore that the user of alfalfa hay or of alfalfa meal know the source and process of manufacture of the product before he buys it in order to be sure that it is fitted for the purpose for which he intends it.

S. H.

Soil—Nature's Great Laboratory

The Progress of a Nation Is Dependent on the Quality and Care of the Land

By J. G. Lipman

THE earth's crust, the air and the sun contribute to the disintegration of rock material and the formation of soils. The process of soil formation has been going on for countless centuries. It is going on now. The force of moving water, the union of air oxygen and rock constituents and the expansion and contraction of minerals, as the sun shines on them, all play a part in the breaking up of rocks at the earth's surface. Water as one of nature's most potent solvents carries away a part of the rock material.

Bacteria and other microorganisms appear among the rock fragments. They produce carbonic, nitric, sulphuric and other acids and through these speed up the work of disintegration. Green plants make their appearance. Utilizing the energy of the sun they acquire from the air large amounts of carbon, oxygen, hydrogen and, indirectly, nitrogen and sulphur. As they die and are decomposed their remains become a part of the soil.

Thus, in the course of time, the bare rock is covered with a mantle of more or less finely divided mineral fragments. Among them are scattered the remains of plants, animals, insects, bacteria and fungi. Living organisms, most of them invisible to the naked eye, are present in vast numbers. The net result is a mass of usually porous, friable material made in the mills of time by physical, chemical and biological agencies; a product constantly gaining and losing a part of its substance; a product out of which there come food and shelter for man and beast.

A Home for Plants

Plants small and large anchor themselves in the soil. Its depth, its texture, its composition influence root penetration and development. The enormous quantities of water taken up by plant roots and used in the production of vegetable matter, must be stored in the soil. The water storage capacity of some soils is limited, that of others very great. Hence, as a water reservoir soils differ in economic value in accordance with their ability to store water and to lift it to the surface by capillary action. Tillage, drainage, irrigation and crop adaptation become, of necessity, a part of our farm practices in their relation to the storage, use and conservation of soil water.

The ash of plants varying in amount, but representing roughly one-twentieth of the entire weight of dry plant substance, is of rock origin. The rest of it comes from the air. But small as is the relative amount of ash, it is indispensable. Without it plants cannot grow, and the soil must furnish it. The more prominent constituents of plant ash, such as calcium, magnesium, potassium, phosphorus and sulphur are, in the course of time, removed in large amounts from cultivated soils. Deficiencies of these and other constituents may develop, crop yields may shrink, and farming may become unprofitable.

There is a vast difference in the amounts of ash constituents and of nitrogen found in soils of different origin and composition. For instance, some soils contain less than 1-10 of one per cent of calcium, while others contain more than 10 per cent of this constituent. There are analogous differences in the amounts of potassium, phosphorus, nitrogen and sulphur.

Mine and Plant-Food Factory

It is obvious, therefore, that in exploiting the soil the farmer uses the store of plant food as long as he finds it profitable to do so. We may therefore consider extensive cropping as a mining process, and the soil itself as a mine of plant food. Some soils are rich mines and others poor ones; some soils are of enduring fertility and others notoriously unprofitable without the use of manures and fertilizers.

But the changing of soil constituents into plant products is more than a simple process of mining. Plant roots can take up calcium, potassium, phosphorus or other soil ingredients only insofar as they appear in the soil solution. Chemical and biological processes come into play in moist soils; solution, precipitation and absorption occur simultaneously. As the plant roots absorb some of the dissolved material it is replenished from the reserves in the soil minerals.

We may, therefore, refer to the soil as a labora-

tory in which nature's forces are at work to supply material out of which plants are made. Chemists and biologists speak of dynamic conditions in the soil. They remind us of the significance of microorganisms in the changing of insoluble into soluble plant food. We are thus made to realize that large harvests are possible only where the soil as a laboratory is functioning at a high level of efficiency.

A normal soil offers suitable conditions for the growth and development of minute organisms and of higher plants. It is for them a culture medium. To function properly as a culture medium a soil must be suitably located, that is, it must have a satisfactory environment. If the mean annual temperature is too low, or if the amount and distribution of rainfall are inadequate, crop production cannot be made profitable even though the soil itself may meet all the requirements of large crops. We regard, there-

them as fertile. Fertility and infertility are, however, terms used in a relative sense. The market price of the commodity, on the one hand, and the cost of production, on the other, must determine the farmer's net profits. It follows, therefore, that a soil capable of yielding the largest crops per acre is not necessarily giving the farmer the largest net returns. Everything considered, however, the higher the average yields, the greater the net profits.

Much thought and effort has been given to developing methods for making soils more effective as a culture medium for economic crops. As will be noted later, we owe much to soil investigators for having pointed out the way toward larger yields and greater net returns per acre. The crops themselves have become, through selection and breeding, better adjusted to their climatic and soil environment. Thus, the varieties of staple crops now being produced are a marked improvement on their predecessors.

Our soil and plant research have aided also in developing new types of plants and in indicating their place in our crop system. It has been found that the composition of the soil is influenced by the composition of the soil. Hence, information is being furnished to farmers whereby they can increase the proportion of sugar, starches, protein or fat by modifying the soil environment of the crop.

A New Chapter in Soil Science

The types of farming are being changed to provide for adjustments and changes in market demands, transportation methods and processing. Domestic animals are being grown on different soil areas in keeping with the kinds of crops best suited to any soil type. Advantage is taken, therefore, of proper adjustments between soils and crops and crops and livestock to which these are fed. Enormous economic values are created from year to year because of the application of the results of scientific research to land utilization in the production of plants, animals and their derivatives.

As already noted, the composition of soils is reflected in the composition of plants and animals produced on them. Soils containing relatively large amounts of calcium, nitrogen, potassium, sulphur and other ingredients will produce crops containing a relatively high proportion of these constituents. When such crops are fed to livestock, growth and vigor are encouraged. This explains to us why men and animals on some soil areas attain a greater size than on others.

Recent investigations emphasize the significance of such constituents as iodine, fluorine, copper, manganese, etc., in promoting the growth of plants and animals and in increasing their resistance to disease. The relation of soils to plants and of plants to animals appears particularly important when we deal with milk and milk products. A new chapter is being written in the history of soil science because of the recognition that a more or less intimate relation exists between soils and race qualities.

Effects of Soil on National Traits

The natural fertility of soils and their adaptations to certain economic crops have had their influence in the development of social organization. Grazing lands, and particularly grass lands of good quality, have played their part in the life of pastoral people. Large areas of such land have been held and are still being held in common possession.

The quality of soils has stimulated or retarded the migrations of nomadic peoples. The emigrations, in their turn, have been reflected in political and social changes. Irrigation farming introduced certain elements of stability in the social and political structure of many peoples. The wealth accumulated in irrigated areas has been the cause of envy and war. The nature of the soils and their utilization have played a part in the evolution of religious rites and ceremonies. They have served to determine the types of recreation and education among the rural people. They have been a means of creating great empires, of initiating political and social policies, and of increasing or diminishing the duration of wars. Because of the part they have played in times of famine and pestilence, they stand out as a major factor in having helped to direct the currents of human history.

(To Be Continued)



State College of Agriculture and Experiment Station. Recognized in this country and abroad as a foremost authority on soils and fertilizers, he was elected President of the World Congress of Soil Science held in this country last year.

fore, climate and season as major factors in the economics of farming.

Granting suitable external conditions, soils must meet certain requirements if they are to grow normal crops of good quality. They must be neither too fine grained, nor too coarse grained. If their texture is right they will allow the proper circulation of air and water. They must be rich enough in certain minerals to yield a constant supply of plant food ingredients to the soil solution. They must contain plant residues and other organic matter of the right quality and in sufficient quantity. They must not be too acid, nor should they contain poisonous substances.

The Part Bacteria Play

When these conditions are met microorganisms will flourish. Their activities will lead to the production of ammonia, nitrates, sulphates and phosphates, as well as to the fixation of atmospheric nitrogen. The useful bacteria will thrive, there will be a good supply of available plant food and conditions will be favorable for large harvests. Hence a soil which is a good culture medium for bacteria is also a good culture medium for crops. For intensive production the soil must be at its best as a culture medium.

Much of our wealth comes from the soil. The great food staples like rice, wheat, maize, oats and rye absorb a large part of the cultivated land. Sugar cane and sugar beets, cotton and other fiber crops, soybeans and flaxseed, rubber, spices, tea and coffee involve the use of vast areas in temperate and tropical regions. Forage crops for livestock are derived, in part, from meadow and range, fruit from far-flung orchards, and vegetables from garden and field. Forest trees are a crop, and, as such, they occupy enormous areas. All told, therefore, we must depend on the land to furnish us with proteins, carbohydrates, fats, and a number of other less well known substances, for feeding men and animals. To the land we also look for raw materials used in the manufacture of other commodities.

Soils may be economically efficient or inefficient. When the yields are such as to allow the operator to obtain a profit, we consider the soils producing

Eastern Farm Comments

By MILES HORST

PENNSYLVANIA millers, through their State Association, are showing a new interest in the kind of wheat grown in our Pennsylvania fields. A number of them have proposed to buy good seed wheat of the varieties best for milling purposes and exchange it with local farmers bushel for bushel with seed that is polluted with objectionable weeds or wheat of low quality. We believe, however, that the best way to encourage the growing of good milling wheat on Pennsylvania farms is by millers paying a premium on the better qualities. Farmers are not slow in giving the market what it wants when the market is willing to pay for what it gets.

ONE of the features of the Crawford County, Pa., Dairy Cattle Show to be held at Conneaut Lake next week, October 2-3-4, will be the sale of a carload of high-class pure-bred sires secured in Wisconsin recently by a committee appointed by the County Dairy Improvement and Sales Association. Besides this feature will be the exhibition of some of the best dairy cattle in the county, as well as the round-up of local calf clubs. The event is always interesting to those who are fortunate enough to be able to attend it.

THE bee industry is rapidly coming to the front as a profitable branch of agriculture. Evidence of this is emphasized in a report coming from New Jersey, which states that in that state there are 30,280 colonies of bees valued at a half-million dollars. The report says that the total income from these colonies was approximately \$260,000, and the expenses \$152,000, or a net profit for the average colony of \$3.74.

GRADUALLY our horse population of Pennsylvania is decreasing. In 1920 it was placed at 96,000; in 1924, at 433,000; in 1927, at 374,000, and the 1928 estimate just released places the total horse population of Pennsylvania at 359,000. This is the lowest number of horses on Pennsylvania farms since 1860. The figure in itself is no cause for alarm, for horses are being replaced by tractors on many farms in the state, yet one cannot help but notice as he goes up and down the highways, that the horses now on the farms are old and depreciating rapidly.

The number of colts on our farms to replace these aging horses is small. The day must come when the demand for replacement will be far heavier than we have seen in recent years and fortunate will be the farmer who has good young horses for sale.

HARRY HENDERSON has been chosen head of the Department of Dairy Husbandry at the University of West Virginia. He is well known to many Pennsylvanians for he was reared on a farm in Indiana county, graduated from State College, where he also took his advanced degree, and then served as county agent in Crawford county for three years. Since then he has been doing extension work in West Virginia, and now has been called to head the Dairy Department. His many friends in Pennsylvania wish him well in this new and responsible position.

EACH year the number of Pennsylvania dairymen honored by the National Dairy Association for their achievement in dairy production increases. This year 653 have been singled out for these national honors which go to dairymen whose herds during the year averaged more than 300 pounds of butterfat per cow, records made under the supervision of cow-testing associations. Last year the number so honored was 428, and in 1926, the first year certificates were granted, the number was only 335. The highest cow-testing association record made for a herd in the state this year goes to H. A. Snyder of Montoursville, whose 15 cows averaged 526.4 pounds of butterfat during the past year. Among the counties, Mercer has the largest number of good dairymen with 51 selected for the national certificates; Bradford comes second with 41, Tioga third with 37, and Chester fourth with 35 herds; Cumberland, Sullivan and Union counties tie for fifth place with 23 herds each.

THE third county Gold Medal Colt Club has been organized in Pennsylvania. The first was started in Franklin county, the second in Westmoreland county and now Indiana county horsemen have adopted this method of encouraging the breeding and raising of better colts. In these club farms they enroll their colts and weigh them during the fall. These colts are then fed and cared for by their owners throughout the year. They will be shown at

the County Fair next fall and medals will be awarded according to the showing the colts make in the show ring, as well as according to the gains in weight they have made during the year.

A LARGE peach grower in Lebanon county during the height of the Elberta season started a large truck each morning with a load of peaches to Philadelphia. He started another in the direction of New York City. Doing this, he tells us, relieved the local market where the price of peaches was dropping under the general level of the larger markets. Although the distance to Philadelphia was 90 miles his truck delivered a load of peaches within four hours to this market. It was a godsend to him in solving the problem of disposing of his crop. There are a large number of other orchardists who are finding the truck and good roads a solution to the problem of finding an outlet for their crop, especially during heavy seasons. But there are still hundreds of others to whose places good roads have not yet been extended. They have no outlets to the big markets and must sacrifice their crops to the limited area which they can reach. It is at such times that nearness to a good highway is appreciated. We still need the extension of good roads to scores of isolated communities in Pennsylvania.

RABIES continues to be a troublesome disease in this state. Two hundred and thirty-two cases of rabid dogs were reported in Pennsylvania during the year up to September 1. One hundred and eighty-nine persons and 559 animals were bitten. Its control during this year shows up a lot better than it did a year ago for during the same period 340 cases of rabid dogs were reported, and 250 persons and 664 animals were bitten.

THE severe storms that did so much damage in the West Indies and along the Florida coast, while well spent by the time they reached New Jersey and eastern Pennsylvania, did thousands of dollars worth of damage in fruit orchards and corn fields. Much of the heavy corn in southeastern Pennsylvania after the storm had been blown to the ground and in fruit orchards peaches and apples suffered a severe drop.

A FARMER of Montgomery county told me a few days ago that his barn burned down in June. He estimates that it will cost him \$8,000 to replace it. He carried but \$3,000 insurance on the old barn. Laying out \$5,000 additional for the new barn is a burden to this man who bought the farm several years ago and carries a heavy mortgage on it. Here is a lesson for owners of many other farms who are carrying insurance on their farm buildings for amounts far less than it would cost to replace them.

IN a news report from the Netherlands we read that one operator of aeroplanes delivered 150,000 pounds of fruits and vegetables from his country to London during a single month. This sounds unusual. Yet every important city in this country today is establishing airports. The aeroplane itself is being called on for more and more service. It will not be many years before this same service may be used to carry perishable fruits and vegetables from distant producing centers to our large cities, insuring consumers of a product at least in almost as fresh a condition as the producer gets it on his own table.

A Day at the Allentown Fair

THURSDAY, September 20th, was the big day at the Allentown Fair. And a big day it was, for the grounds were crowded almost from fence to fence, the attendance being estimated at 60,000 people. The outstanding feature of Allentown's Fair from an agricultural standpoint is its poultry exhibit. We doubt whether there is any poultry exhibit held anywhere in the United States where more chickens are brought together for exhibition purposes than at this county fair. This year the two large buildings given over to poultry were full and overflowing. Circling both buildings were rows of coops housing ducks, geese, turkeys and excess poultry exhibits. And the show is appreciated, too, for from morning until night the aisles of these buildings were crowded to the limit.

In livestock exhibits the Allentown Fair suffers somewhat by coming during the same week as the Fair held at Springfield. Many of the larger ex-

hibitors go from the Reading Fair to Springfield because of the better premiums paid. Nevertheless, the exhibits in most of the livestock classes were well balanced and of good quality representing many of the best herds in this section of the state. In the swine contests, J. J. Roberson of North Carolina with 80 head of hogs representing the four leading breeds carried away premier honors. Waldo Barron of Slippy Rock and D. E. McDowell of Mercer, Pa., carried off the leading honors in the sheep classes.

Among Holsteins, the herds of A. T. Riegle of Schuylkill Haven, Wm. Landis of East Greenville, Berks county, Seward Stock Farm of Virginia, and James Paxton of Houston, Pa., shared about equally in ribbons. Among Guernseys, the Bolton Farms of Bristol, Pa., and the Longwood Farms of Kennett Square, Pa., were the chief contenders. In the Jersey classes competition was keen between the Old Forge Farm, L. D. Cowden of Fredonia, N. Y., and T. B. White of Ohio.

The great interest in horses in Pennsylvania was evident in the fine attendance around the judging ring while horses were being judged. This can be said of most of the fairs being held in Pennsylvania this year where good classes of horses are being shown. Willow Brook Farms of Catawissa were the chief exhibitors of Percherons and Belgians and won leading honors in both breeds. A four-year-old team of Belgian mares owned by this concern driven before the Grand Stand each afternoon won much favorable comment, both from the press and the spectators. A growing interest in saddle horses was also indicated at this fair, as at other fairs. The classes of three-gaited and five-gaited horses had more entries and there was a far better exhibition of these horses than we have ever experienced at these fairs before. There can be no doubt but that the raising of saddle horses in Pennsylvania under intelligent supervision will be profitable in the years ahead of us, for the public is turning rapidly to the saddle horse as a means of sport. One criticism we would make of the livestock exhibit at this fair was the lack of proper labeling of exhibits and of individual animals. We were at a loss to tell in many cases to whom good individual animals belonged. This is not taking advantage of a good means of advertising which these fairs are offering.

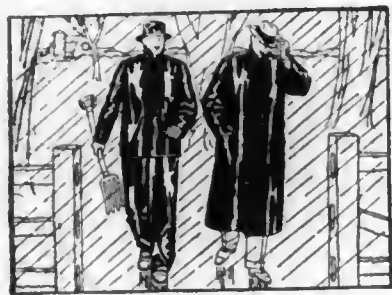
New Jersey Notes

THROUGH arrangements with the Reading Railroad, farmers in the grain sections of central New Jersey were having their wheat seed treated for stinking smut during late September. The Reading Railroad ran a special train with facilities to treat at least 1,000 bushels of wheat at such centers as Hopewell and Belle Mead. The Hunterdon County Board of Agriculture cooperated with the railroad to the point of having farmers bring their grain to the train at the nearest demonstration point, the only expense being four cents a bushel which is the actual cost of the copper carbonate dust, no charge being made by the railroad for its part in the demonstrations. The train was in charge of Arthur Eldred, former county agricultural agent in Atlantic county and now agricultural agent for the Reading Railroad. Somerset county farmers took part in the affair through their County Board of Agriculture.

THE tuberculosis eradication work, conducted by the Bureau of Animal Industry of the State Department of Agriculture, cleaned up practically all of the dairy herds in Camden and South Jersey counties supplying the principal Philadelphia milk distributors. In Burlington and Hunterdon counties practically all of the herds not yet tested are signed up for testing at an early date. During the last fiscal year the Department made 83,778 tests of cattle, an increase of 25,415 over the previous year, when 58,363 tests were made. This means that practically 43 per cent of the 161,000 dairy cattle in New Jersey were under supervision this last summer.

LOCAL good roads organizations and towns in a northwestern New Jersey are uniting to boost a new Delaware River drive and bridge to connect Pennsylvania and New Jersey somewhere in the vicinity of Frenchtown or Kingwood. The Frenchtown section of the state, which is headquarters of the baby chick industry in New Jersey, is less accessible to main lines of travel than practically any other section of New Jersey and the definite move now under way promises to bear fruit. The bridge in the Frenchtown-Kingwood section would eliminate the necessity of journeying south to Trenton and north to Phillipsburg in order to have suitable access to Pennsylvania just across the river.—B.

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HERE'S real wet-weather protection. Fish Brand Slickers and Work Clothes are roomy, comfortable—built stoutly, to defy the stormiest weather. Made by people who know how, because they've been at it for more than ninety years. Hats to match. The illustration shows a Fish Brand Work Suit of jacket and overalls, and a Fish Brand "Varsity" Slicker.

Tower's Genuine Fish Brand Water-proof Clothing is carried by stores everywhere. It is the standard in its line, yet it doesn't cost a bit more than ordinary garments.

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Agricultural Engineering



Floyd Merkle Finds an Electric Motor Useful in Washing Milk Bottles

Portable Electric Motor Is Farm "Handy Man"

By R. U. Blasingame

DURING the past year the electric companies in Pennsylvania have built about three million dollars worth of lines through the state. It pays both the electric people and the farmer if those lines are loaded with profitable work. One cannot, as a rule, get the low rate when just using lights and a few home appliances. Most of the electric companies will allow farmers to use motors up to five to seven and one-half horsepower without charging extra.

It is surprising what a five-horsepower motor will do. If the right size silo filler is employed this size motor will fill silos up to about forty feet high. Reports from Idaho, Minnesota, New York, Oregon, Washington and Wisconsin show not only that silos can be filled with five to seven and one-half horsepower electric motors, but it is being done right along.

These reports show that the energy consumption, kw. hours per ton of silage, runs from 1.36 to .5. This is very cheap power cost. They show further that this size motor will put up from five to six tons per hour.

Husker-Shredder

These same reports make mention of the fact that a five-horsepower motor will operate a two-roll husker. By using care to operate the blower at a low speed it will successfully run a four-roll husker. It must be remembered that to run a blower at high speed takes lots of power.

This is the secret of silo filling. One cannot take an old type silo filler which must run about 900 revolutions per minute and expect a small motor to operate it. The filler must be run around 450 to 500 or thereabouts.

Hay Hoisting

Experiments in the states mentioned above show that two to five-horsepower electric motors will hoist from 25 to 45 feet high at a very low power cost. The portable motor can be used profitably to do many other jobs, such as sawing wood, grinding feed and bones, shelling corn, cleaning grain, pumping water, etc.

Around the Dairy

The illustration shows Mr. Floyd Merkle of Berks county, Pa., operating his bottle washer with a small electric motor. This man has a fully equipped place for using electrical power. He

of cement is enough. If the stone and sand are wet use less water. All that is needed is a plastic workable mixture. Clean sand is essential to make good concrete. Sand containing too much silt, dust or clay or organic matter such as rotten leaves, grass, etc., does not make first-class concrete. The gravel or crushed stone must be sound, solid and strong.

Thorough mixing is another essential. Concrete mixers do a better job than can be done by use of the shovel. If shovel or hand mixing is done, be sure to keep the concrete materials spread out on the mixing board. Concrete can not be thoroughly mixed when piled up in a heap.

Refrigeration Necessary Above Ground

Would appreciate it very much if you would suggest a plan for a cellar for milk and sealed fruits only, to be about 8x8 feet on the inside. It will have to be built on top of ground. Would like it to be as cool as I can make it for summer without too much expense and so it will not freeze around 12 or 15 degrees below zero. It gets colder once in a while for a night, but I can set a lamp in it when it does.

Had thought some of building an inside wall of blocks on edge and make a form of cement on outside and roof of cement and then if it had a door with some protection against fire it would help some in case of a fire. Would a building of this size need ventilation other than the door, which could be screened and left open at such times wanted to cool down the building?—J. E. H. Lewis county, W. Va.

I do not believe that you can expect a building 8x8 feet, or any other size built above ground, to be cool in summer without the addition of refrigeration coils or some other means of cooling.

I have seen several successful refrigerator boxes built about the size you mention constructed of concrete blocks on the outside and lined on the inside with three or four inches of cork, the joints of the cork being sealed with tar. Not only the sides were thus insulated, but the floor, roof and ceiling. A refrigerator door was used and the outfit gives very satisfactory results.

For cooling, a coil of refrigeration pipe can be installed and attached to a small refrigeration unit.—R. U. B.

Concrete Facts

CONCRETE is a mixture of gravel and sand held together in a glue. The glue is made of cement and water. If too much water is used to make the glue the concrete will be weak just the same as if too much water was put into glue which was used to hold furniture together or to paste a picture in the family album. About seven and one-half gallons of water to each bag

What Is The Combine?

The combine is just a thresher that can be pulled around and thresh as it goes. The binder has to be equipped with a platform and canvas to receive the grain as it is bent over the cutter-bar by the reels; the combine thresher has the very same kind of attachment in order to collect the standing grain and get it into the cylinder of the thresher.

The man seen on the front of the combine in the picture is engaged in doing the very same thing that the farmer on the binder seat has to do

when he strikes short or tall grain or badly lodged straw; this operator is raising and lowering the reels or platform canvas or tilting it to get under the down grain. Instead of elevating the cut grain to be tied into sheaves the combine merely elevates it into the cylinder of the traveling threshing machine.

Instead of a blower this combine has a horizontal straw distributor, merely a fan arrangement that bats off the straw in a way entirely like a grass seeder spreads clover or timothy seed.



Make It Easy To Change Tires

TWO years ago I bought a new car. I had no tire trouble until this past July. When I tried to remove a tire from the rim it had rusted so badly to the metal rim it had almost spayed the head. A reliable garage man told me to paint the rims with a mixture of graphite and oil. When I put on a new set of tires several weeks ago I had the rust removed from the rims and painted two of them with the graphite and oil mixture and the two others with a quick drying paint. The tire people say that either is good and will prevent the tire rusting on the rim. It is provoking and expensive to have this happen and I expect to paint my rims hereafter in the manner mentioned above.

Another thing. Air is free at hundreds of filling stations and garages. There is no excuse for tires being run either under or over-inflated. It is true that tires are cheaper than in early rubber history and better. Even so they are an expense worth careful attention.

A method of individual farm budgeting to enable farmers to plan their operations in the light of prospective returns at marketing time has been worked out by the Bureau of Agricultural Economics, United States Department of Agriculture, and published in Farmers' Bulletin 1504-F, Farm Budgeting.

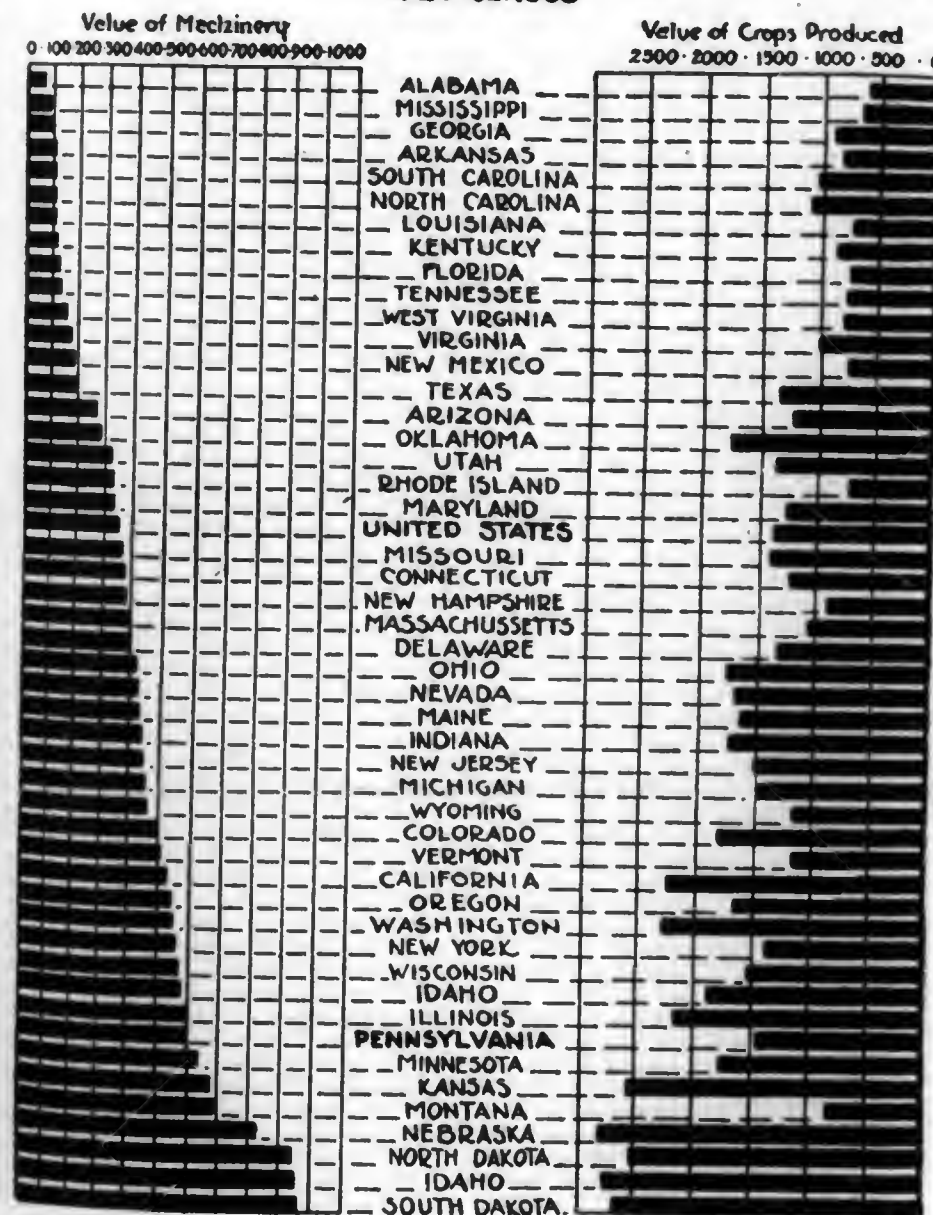
A Dubuque, Iowa, corn stalk manufacturing plant has bought 5,000 acres of corn stalks. Price runs from \$2 to \$3 an acre where livestock has run, to more in untouched fields.

A Useful Book

ELECTRICITY on the Farm and in Rural Communities" is the title of a recent publication issued by the Committee on the Relation of Electricity to Agriculture. The address of this committee is 1120 Garland Building, Chicago, Ill.

This book is 11 by 8½ inches and contains 130 pages. It is profusely illustrated and the text is explicit and to the point; it contains all of the information which has been collected from twenty agricultural experiment stations doing rural electrification research work. In fact, it is an encyclopedia of the latest developments in the use of electricity on the farm. Those interested can secure this book for 50 cents.

EFFECT OF MACHINERY ON PRODUCTION PER FARM WORKER 1920 CENSUS



THERE is a very definite relation between the value of crops produced and farm machinery used in the industry of agriculture. This same relation is obtained in the industries as well.

Pennsylvania farmers since 1920 have bought larger quantities of "profit-producing" equipment per acre cultivated than the farmers of most any other state. They recognize the increase in the cost of power and labor under the old methods.

R. U. B.



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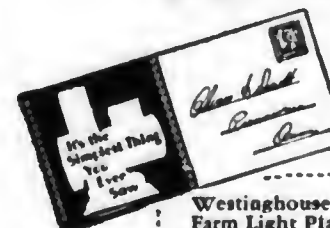
It is easy to understand why farmers can't say too much for the improved Westinghouse Farm Electric. No other plant of equal capacity has so few parts—nothing to tinker with—nothing to get out of order. What's more, its operating smoothness and efficiency have actually been increased, thereby insuring less wear and tear and longer life.

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HORTICULTURE AND TRUCK CROPS

Gardeners Get New Pointers at Annual Meeting

By Gilbert S. Watts

THE annual convention of the Vegetable Growers' Association of America, recently held at South Bend, Indiana, was as usual a live affair, full of ideas for wide awake gardeners. And many of these pointers are as applicable to the problems of the home gardener as to those of the commercial grower.

Did you ever have a seriously large percentage of your early celery go to seed? During an informal chat "outside of meeting"—many of the best tips to be gained at grower conventions come out during the two, three or many-sided discussions which continually arise—Prof. H. C. Thompson told of a series of experiments which he has made to determine the causes of premature seeding of celery. The results apparently show very clearly that premature seeding is almost certain to follow when the young plants, either before or after setting in the field, go through a more or less prolonged period of low temperatures.

This theory is not new. Growers have contended for years that early celery should not be put in the field until after danger of severe frosts. The remarkable fact discovered by Professor Thompson, however, is that celery plants which never experienced temperatures below 60 degrees F., or which endured temperatures lower than this score only for very brief periods, grew practically 100 per cent without seeding.

Sixty degrees, or even 50 degrees Fahrenheit, is not considered a low temperature for hardy plants, but it seems definite injury can be done to celery plants without going close to the freezing point. For several years past I have suffered decreasing losses from seed shoots in my early celery and I know that I have given plants for this crop more heat, more uniform heat than formerly. This is indeed an important point, for premature seeding of celery not uncommonly runs to ten, fifteen, even twenty or more per cent.

In one of the regular meetings a lively discussion arose on the subject of roadside marketing. The several roadside marketers who were present unanimously agreed that the most important factor in building and keeping roadside market trade is a dependable supply of the things to be sold. Several men pointed out how damaging it is to the future of a market for people to come out into the country for some special thing they like only to find none of it on the market stand. It was suggested that dependable supply is even more potent in building trade than unusually high quality.

In another session a great deal of interest was aroused by a report of experiments with peat pots. Theoretically the roots of young plants are expected to grow right through the peat sides, thus permitting the pot and all its contents to be transplanted to the field without root disturbance. The idea is good but the experiments reported and the experiences related by several growers all indicated results inferior to those secured with ordinary clay pots and wood veneer bands.

Prof. W. R. Beattie of the U. S. Department of Agriculture stated that the substance of peat pots has been found to be quite acid and that experiments are being conducted to determine whether or not lime or some other material can be added in the course of manufacture to make peat pots come up to expectations. Both home and commercial gardeners may do wisely to test out these relatively new plant growing receptacles on only a small scale until their manufacture has been perfected.

Bacteria Also Need Nitrogen

In a discussion of manures, fertilizers and green manures explanation was given for the poor or yellow crops which sometimes follow when a heavy application of fresh strawy stable manure or a rather advanced, fibrous rather than succulent, green manure is plowed under.

The bacteria which do the useful work of breaking down or decaying coarse material may require more nitrogen than is readily available in the soil. Thus both bacteria and the growing crop compete for what ordinarily is the least abundant element of plant food.

Trouble of this sort may be eliminated by plowing under green manures when they are in a relatively young and succulent state and by composting stable manure. When green manures grow strawy or woolly and fresh stable manure must be plowed down liberal applications of a commercial fertilizer mixture rich in quickly available nitrogen will eliminate possibility of nitrogen starvation.

As to the relative advantages of plowing green manures at various stages of growth the answer will depend on one's purpose. If it is primarily to furnish nitrogen to the following crop through decay of the green manural crop, early plowing is in order. If the soil is particularly deficient in organic matter, if it is inclined to crack, bake and so forth, it may be more wise when time permits to allow the green crop rather full growth. Thus the maximum amount of fibrous organic material may be produced. Its incorporation with the soil will result in a more lasting improvement in soil physical condition. Less crusting will follow after dashing rains, the soil will be aerated better, conditions for germination will be improved. My own experiences of the past seven years in building up a run-down farm amply support the contention that there are conditions under which it is more important to secure the maximum amount of coarse material than to plow down a succulent green manure in order to supply nitrogen.

Select the Show Fruit Now

By John U. Ruef

HOW often does one hear the question, "Just what is an exhibition or show apple?" when examining the entries at the fall shows. The question should not be difficult to answer, but the task of securing a winning exhibit is a "horse of a different color." An exhibition apple is an ideal specimen of a variety which possesses the desired size, shape and color of the variety as well as being free of insect, disease or handling blemishes.

In selecting specimens for exhibit the grower should attempt to select such apples as will meet the above specifications, so that when he has secured the desired number of apples for a plate, tray or bushel exhibit each apple will be an exact replica of any other apple making up the exhibit.

Some persons might ask why the points of shape, size, color, uniformity and freedom from blemishes are of such importance. The answer is that all the points except uniformity are characteristic of the highest quality apples of the variety. In the case of the various exhibits uniformity plays its part in producing a more striking display while in commercial packs it insures a more standardized product.

The question might be answered in another manner—the requirements listed serve as a yardstick in the hands of the judge in determining the winners. Consequently in making his decisions, the judge must consider the points of uniformity, size, shape, color and freedom from blemishes either by using the score card or evaluating the points mentally.

Many score cards have been used in various sections but the following is one that is frequently used.

Size	10
Color	25
Uniformity	25
Blemishes	50

In using the score card the terms are considered to cover the following:

Form.—Specimens should possess the normal shape for the variety as grown in the district.

Size.—Medium to large but not overgrown for the variety. The ideal sizes for Pennsylvania-grown fruits are as follows:

Variety	Inches	Variety	Inches
Baldwin	3-3 1/2	Smokehouse	2 1/2-3 1/2
Ben Davis	3-3 1/2	Stark	3-3 1/2
Delicious	2 1/2-3 1/2	Fallwater	2 1/2-3 1/2
Jonathan	2 1/2-3 1/2	Grimes	2 1/2-3 1/2
Maiden Blush	3-3 1/2	Hinbushdun	2 1/2-3 1/2
McIntosh	2 1/2-3 1/2	King	3-3 1/2
No. Spy	3 1/2-3 3/4	Stayman	3-3 1/2
No. Green's	3 1/2-3 3/4	Twenty Oz.	3-3 1/2
Duchess	2 1/2-3 1/2	Wagner	2 1/2-3 1/2
Odenburg	2 1/2-3 1/2	Wealthy	2 1/2-3 1/2
Rambo	2 1/2-3 1/2	Winter	2 1/2-3 1/2
R.I. Green's	3-3 1/2	Banana	3 1/2-3 3/4
Ho. Beauty	3 1/2-3 3/4	York Imp.	3 1/2-3 3/4

The above ideal sizes for the varieties are quoted for diameter in inches.

Color.—The color should be distinct and show all the natural characteristics of the variety. In show specimens color carries considerable weight as well as in the case in the higher U. S. grades; consequently the growers should attempt to secure as high colored individuals as possible but not sacrifice all other score card points for color.

Uniformity.—Specimens should be of the same size, shape and color.

Blemishes.—The fruit should show no imperfections whatever, such as worm holes, disease spots, bruises, loss of stem, mark of handling, shriveling, etc.

In preparing fruit for show there are

a number of things the grower should keep in mind other than the points of the score card.

1. Do not polish apples, the bloom is an asset.

2. Do not expect to win with apples, from which stems have been removed.

3. Handle fruit like eggs, not potatoes; the skin is the container and protects the contents.

4. Do not enter more or fewer than the required number of specimens per plate as this automatically eliminates the entry.

5. Show only named varieties.

6. Place in storage as soon after harvesting as possible if show date necessitates.

It Pays to Thin Wealthy Apples

ON June 28 I held a thinning demonstration on Wealthy apples. Trees were very heavily set and fruit was clustered. At that time the little green apples measured about an inch and three-quarters in diameter. The fruit was thinned to the best fruits standing singly about six inches apart. Recently the fruit was harvested and a typical thinned tree produced 11 bushels of marketable apples two and a half inches and up, while a corresponding unthinned check tree gave but five bushels of marketable fruit of the same size and grade. The fruit sold at \$1.10 a bushel at loading point, which made a gross income from the thinned tree figure \$12.10 as against a similar income of \$5.50 from the unthinned tree.

It required two and a quarter hours of labor to thin the tree, which in that community figured a cost of forty-five cents. This investment in thinning labor increased the crop value of a single tree by \$6.60 or a net increase in sale value of \$6.15 per tree. On the basis of a ten-hour day thinning Wealthy in this orchard paid at the rate of \$25.06 a day for thinning labor on the 1928 crop.

Fewer Culls

About a peck of apples on the thinned tree failed to make market size and quality at harvest time. On the unthinned tree six bushels of apples were unsalable for lack of size or color or quality. Further it took less time to harvest and sort the crop from the thinned tree because fewer larger apples were handled as against the larger number of inferior apples handled in picking and grading the crop from the unthinned tree. The thinned fruit had far superior color and finish because the crop was nourished by a larger percentage of leaves to individual fruits. There was considerable limb breakage on the unthinned tree but no branches were broken down on the thinned tree after the thinning was done.

The Proof of the Pudding

Isn't this a convincing demonstration for thinning Wealthy apples? The grower is convinced that no labor in his orchard paid him a better profit this year than that spent on thinning. He is sold on the value of the practice and so are a large number of other growers in the community who attended the demonstration and have since seen the results.

I have never yet visited an apple grower who has practiced thinning and seen its advantages in growing quality who has ever given up the practice. However, I visit far too many apple growers who have never tried thinning and it is usually this class of growers who complain most of being unable to grow the desired market quality. We often have too much fruit to market in these years of heavy production, but seldom do we have a surplus of the top grades. We need more apple thinning practiced in orchards of the Middle West and the East. It is only by practicing thinning that we can grow the quality needed to meet the growing competition.

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put tenderest pieces on top
SOME BONES IN THE CAN ADD FLAVOR AND AID HEAT PENETRATION.
DON'T YOU THINK MY CANNED CHICKEN IS DELICIOUS, EDGAR? I PUT PLenty OF BONES IN—JUST FOR FLAVOR.
DON'T YOU THINK IT'D BE A GOOD IDEA TO PUT A LITTLE CHICKEN IN CHICKEN IN—JUST FOR SOMETHING TO EAT?
JUST BONES.
DON'T PUT IN ALL THE BONES—OR THERE WON'T BE MUCH CHICKEN TO THE CAN (NOR THE MAN).

BEFORE sealing
PLACE CANS FOR 15 MINUTES IN BOILING WATER COMING TO WITHIN 1 INCH OF TOPS OF CANS.
WHAT HO, MEAN—WE ALL GIVIN' DO SOME NOISELESS CHICKEN STEALIN'. AH AN' NEVAH SEEN A FLOCK O' CHICKENS WHAT WOULDNT SQUACK WHEN YO GRABS A HAN FULL O' DEM.
BOY YO DON'T GRAB DE SE CHICKENS BY DE HAN' FULL—YO GRABS 'EM BY DE CANFULL.
HUMBOLDT, DID YOU PUT THEM CANS OF CHICKEN IN THE COOKER FOR AN HOUR UNDER 10 POUNDS PRESSURE LIKE I TOLD YOU?
I COULDN'T FIND THE PRESSURE COOKER, SO I PUT 'EM IN THIS DISHON FOR AN HOUR UNDER A COUPLE O' 5 POUND FLAT IRONS.

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Farm and Dairy

Pitfalls

By L. W. LIGHTY



When the production of some cow in your herd goes below normal and you get disgusted because you know this slump in milk is costing you money, she'd like to broadcast the truth about her physical condition.

If she could talk you would hear a story of an off-feed condition—she'd tell you cows have indigestion the same as men; she'd tell you of stomach aches—constipation—fever—any one of which lessens the ability to produce at her best—every one of which makes great inroads into dairy profits. That's why it is so important to select your dairy ration from the health standpoint.

There can be health without maximum production but maximum production is impossible without health.

Larro is the dairy ration that is built to safeguard the health of your dairy herd. For sixteen years a great army of Larro users—thousands upon thousands of dairymen who have fed Larro continuously—are outspoken in their statements that Larro keeps cows in the best of health and milking condition; that Larro avoids off-feed conditions, constipation, udder difficulties, ruined teats.

This ability of Larro to put cows into the best milking condition and to keep them there is another reason that it is the one feed that leaves larger profits after feed bills are paid than any other ration.

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"I have a little over 200 acres of productive land and to date I practiced what we call mixed farming. I sold some milk and some eggs during the spring, a little pork some years, corn, wheat and oats. Hay was my largest money crop. Since hay brings less than nothing, considering labor and fertilizer value, I find much difficulty in keeping the credit side of my ledger up to the debtor side and I am determined to make a change. I have ten cows and were it not for their work there would be quite a deficit in last year's operations. I propose to increase my herd to thirty for the coming year and make milk my money crop. The many questions I am asked show that I am a pretty green dairyman and I ask you to point out the pitfalls as you answer them so I may avoid them."



This man acts wisely. He has found the cows the most profitable in his several operations and he proposes to devote his time and thought to producing milk as a money crop. Had he found poultry the most profitable doubtless he would have made that his specialty, but he says the hens lay only in the early summer when eggs are low in price and if they lay at all other times it is lay down and die. Then having a hay farm he will be able to supply the roughage for the cows and that is a good part of the battle won.

To Get the Cows

To go out and buy twenty profitable cows is not an easy task in these days when the market is overstocked with the other kind. But of course it can be done and is done often enough. There are plenty of good cows for sale if a person is willing to pay the price, and in the end that price is the cheapest, though it sounds high at the time of buying. People are going out of the dairy business as well as going in and if the buyer can do his buying at a dispersal sale he will have a better chance to buy good producers than in buying the chance pick-ups or the same class at the dealers' auctions. Pitfall number one is to put a lot of money in unprofitable cows.

The Equipment

The inquirer asks particularly if it is advisable to invest in a milking machine. The milking machine has proved itself and is doing very satisfactory work on many dairy farms large and small at this time, and unless several good reliable milkers are available it is surely advisable to invest in the mechanical milker.

Another necessity that is of great importance is a milk house where the milk can be cooled and kept in good condition until it leaves the farm. No material is equal to concrete in the construction of this structure. It should be located conveniently to get the milk into it and also so the cold water for cooling can be conveniently run into it. Nothing elaborate or expensive is called for, because the object is simply to cool the milk as soon as practical and keep it cool and clean until it leaves the farm.

There are a number of devices that add to the convenience of the dairyman that are not absolutely essential and had better be procured as needs call for. It is important that the overhead expenses be kept as low as practical in the production of the article our

market calls for. Pitfall number two is to invest too little or too much in equipment.

The Feed Question

To feed the cows properly, sufficient and economically is not a mean accomplishment for any man. At this point in the story I was interrupted by a fine gentleman who had driven sixty miles to view my handsome countenance and have a half hour's talk with me. He has been in the dairy game for 34 years and gathered in enough legitimate cash to pay for several large farms in one of the richest cows in Pennsylvania, and he played the game in such a manner that his four intelligent sons are all in it and are cooperating with him on the several farms. They have eighty cows and market the milk in the home town. He dropped one thought that interested me above all others. He said, "The average cow if fed and cared for in the right manner will make us a profit."

There is much behind this. Thousands of cows would make their owners a profit if they were fed and cared for in the right manner. But this man's average cow is not the average cow of this land of Pennsylvania and the bordering states, as I happen to know well. Pure-bred cattle were brought into this cow more than a quarter of a century back and scrubs are hard to find this day, so the average cow there is really a good cow. Nevertheless his emphasis of good care and intelligent feeding struck me as the keynote to his success. If we fall down here we are down all around.

Roughage

How very little the average feeder pays attention to the roughage he feeds can be known only when you visit thousands of dairymen, as I did in the past, and look at the stuff they feed. So often it is poor, weedy, badly-cured hay and water-soaked corn stover. On the farms managed a little better the hay is fair timothy and ordinary stover or fodder corn and oats straw. With such roughage rations it is high impossible to make any money out of cows. Even the addition of silage made out of immature corn or corn of poor quality does not improve the roughage ration much, and under such conditions much expensive concentrate feed has to be purchased and that consumes what he purchased and that consumes what he should go toward making a profit. Not should go toward making a profit. Not one or a few trials or experiments where all operations and results were carefully noted, but hundreds of them completely demonstrated that an abundance of first-class roughage greatly reduces the feed bill and adds much to the ultimate profit.

If you add to the early-cut, well-cured mixed or timothy hay so common a fair proportion of clover, either red or alsike, and some alfalfa and pea vine and bean hay or the winter vetch you will bring up the protein side of your ration and add palatability. Some of these feeds can be grown on almost every farm, and with silage made from well-matured corn we are enabled to feed a very satisfactory ration of roughage which very often changes loss into profit. Pitfall number three is the lack of an abundance of first-class roughage, and it must be a big pit for the number who fall into it.

The Grain Ration

That part of the grain ration we grow on the farm comes from our cows minus several dealers' profits and transportation costs. The first and best of these grains is corn and all the adjacent states and should be made the basis of the dairy cow concentrate ration as a rule. Nearly all of us can grow oats or barley and this is a very excellent second to corn. There was an old theoretical prejudice against

corn as a cow feed, but today we know no other grain is equal to corn for dairy production.

Thus far we have made the farm a self-supporting unit of production, and this is of the highest importance. But now we find we have needs that make it profitable to go outside the farm. Our roughage and grain supply most of the needs of the cow, but one ingredient is too low, and that is protein. Rather wide observation indicates that about fourteen out of fifteen feeders of milk cows are feeding too little protein. The main reason doubtless is that the low protein feed sells for a lower price and many of us look at the dollar rather than at scientific common sense. But the fact is that carefully studying this matter of supplying enough protein to our milkers means many dollars in our pockets.

When we have an excellent roughage ration with plenty of alfalfa or other leguminous plants a grain ration of one to six is all right, but when our roughage consists of rather ordinary grasses and weeds, as we see so often if we drive across the hills in June, then a ration of one to four is called for and a pretty large quantity of that too. So you note there are a few pitfalls in this grain feeding proposition. First

neglecting to grow the grain so easily grown on the farm and second not supplying our cows with enough protein to make a maximum profit.

Pasture

Time was when pasture was not considered a big factor, but today the pasture on the dairy farm looms big and the farm lacking good and abundant pasture is badly handicapped. It is a matter of low cost feed and the health of the cow. It is the feed the cow harvests for herself and it is the feed and the feeding condition or the environment of the cow that show in the milk pail as well as in the milk check. Be assured that it is very profitable to look after the pasture on the dairy farm. See that there is a solid bluegrass sod and in places where the bluegrass fails to thrive sow such grass seed as is adapted to every square rod may produce its quota of feed. Arrange in some way so the cows may have shade in the pasture and above all things a supply of good wholesome water. Under favorable conditions here for several months the cows will produce milk at a very low cost. Failing to supply plenty of good pasture is not a pitfall but a piece of inexcusable negligence in most cases.

Dairy Topics

It is always a safe plan to consult an architect when extensive improvements are planned about the dwelling house, and the same holds true when we plan any kind of building. When we go to build a silo it is a very good plan to consult with a farm engineer if possible, for in spite of a lot of experience we may have ourselves it is likely that he can give us valuable hints.

After the silo has been built for a number of years it sometimes begins to crumble at the foundation. We are to suppose that the foundation is composed of concrete and that it has been put in right in the first place. What makes concrete crumble? In the case of silos it is likely that sugar is the cause. Corn contains a large percentage of crude sugar and it is well known to concrete makers that it is destructive to cement.

It is generally supposed that the acid in the silage is to blame, but good concrete will stand acid for years and show no bad effects, while a small amount of sugar added to cement before it is mixed will ruin it.

It is as safe to have some kind of drain in the bottom of the pit rather than have no water tight. If it holds water and we leave it open during the summer months there is always a job when it comes to getting ready for the silo crew when filling time comes. Such conditions favor the action of the chemicals that destroy the cement and they favor cement when some one goes into the silo with rubber boots on and gets in too deep. It is all right to fill for after a few loads have gone in the water will disappear, but for the sake of having good silage it is well enough to dispose of the water before the silo is filled. The above applies to silos that have no roofs. If there is a good roof on the silo there will be very little water in the pit.

The Question of Roofs

A silo without a roof has some desirable features and a decided advantage in some respects over one with a roof. If there is no roof the silo may be filled faster than when there is a roof in the way. There is little danger of the deadly carbon monoxide gas that sometimes generates in closed silos. It is easier to put the blower in position, and after the job is done it is easier to remove the blower and get the machinery out of the way. Yet a roof keeps the rain out and some snow, and

most people would rather have one so equipped.

If a removable roof is wanted it may be made by using a two-by-ten set up on edge and spiking two-by-fours on the side of the silo. This may then be sheeted, as lumber men say, and then covered with metal or composition roofing and so arranged that a section may be lifted off or turned back when the time comes to put the silage away for the winter. The market also affords a kind of roof that opens up in sections and allows the silo to be filled several feet above the stave part. When it settles the roof is again folded together.

In whatever way it is put up silage makes excellent feed for the milking cow during that time of the year when succulent feed is hard to get or even impossible to find. It is one of the best hay savers on the farm. By that is meant that when cattle are fed silage less hay is required.

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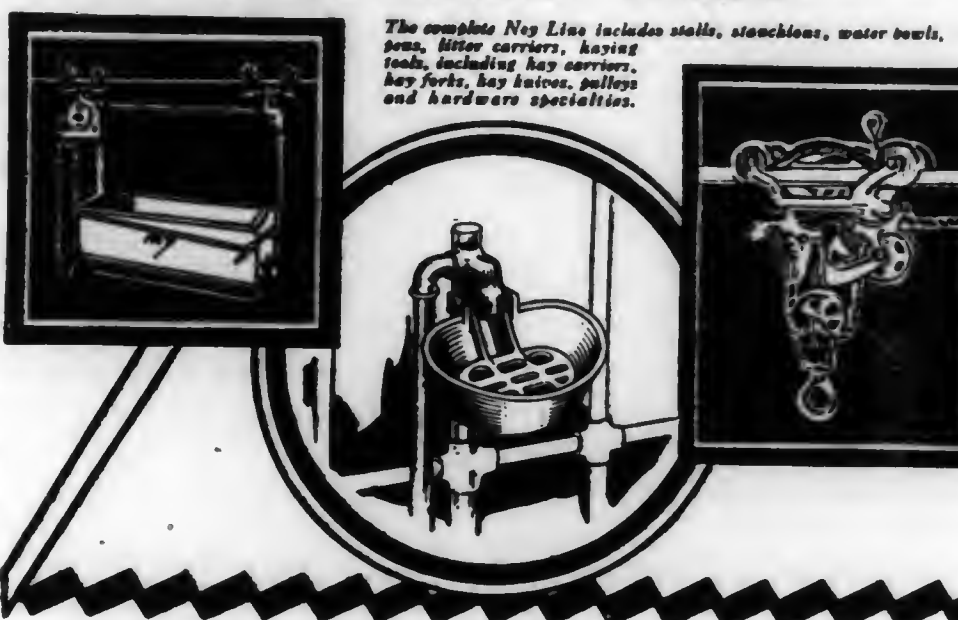
How about paying your hired help such figures? How much would you consider yourself worth to some farmer as help? I merely ask the questions because there is a popular tendency to pay hired help enormous wages, and the tendency is going to increase in the near future. Big companies consider it good policy to pay big wages and keep the man they train to their particular needs rather than pay him about a hundred dollars a month and have to train a new man every month or two. Their idea is to start a man at \$250 per month and advance him to the above figures as fast as he can take on new work and train another to take his place. The pay is for executive ability, and it may run into thousands if the man is capable of leading. Before you decide that the whole scheme is economically wrong study it over both from the employer's point and from the employee's side. If there is any executive ability in a young man it will assert itself on comfortable salary where it would starve on starvation wages. A young man may feel sure of himself at five hundred a month, something to marry on and support a family and lay by for a home, etc., where he would be dissatisfied on a hundred a month. The argument on the other hand is that it breeds in the young man a tendency to fling money. He may take the attitude that he is making good money to start with and that there is going to be no end to it.



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THE FARM



HOME PAGE

How Soon Is the School Bus Coming?

SEPTEMBER days find the little children of three and four years fretful and weary wondering what to play and what to do. All summer they have frolicked right along with Jane and Jerry now in school, and the leadership is missed. They ask again and again "How soon is the school bus coming?" Thoughtful mothers will plan wisely during autumn days to help these lonely children acquire new habits of active play and wholesome occupation. Your own peace of mind as well as the happiness of your children will reward you for this planning.

Swings and Slides Are Big Helps

A little outdoor equipment is of great value. This need not be expensive nor elaborate to fascinate the children. I have often wondered why every country home does not think of providing swings for the children. A rope swing under the fine trees is ideal for the center of interest, and is just as necessary to the real home as is the great coil of rope carefully stretched out in the sunshine weekly for laundry purposes. Why not borrow a few feet of wash-line today for a swing, and see if Tommy doesn't soon stop his whining? Another inexpensive treat is a movable sliding board. You may have somewhere around the buildings just the very plank to prop up against the porch rail and give hours of keen merriment "just sliding". Any smooth board about twelve inches wide, two inches thick can be adapted, if given a good planing and sand-paper rub. There is just no end to the new places on the farm to which this board can be given new surroundings for added fun. If you must go to the lumber yard and buy a board, it's a fine investment. Choose one long enough to use in connection with your step-ladder, for the climbing gives added sport and splendid exercise.

See-saw Gives Hours of Fun

This very same board may serve another purpose. Do you remember how we as children loved to see-saw using rails from the fence? I do and that was jolly fun, but in many sections rail fences are scarce, so this is a good substitute. Most farms offer many suggestive places where this board becomes a see-saw. The youngsters at this farm prefer the saw-buck and you should see how many balancing games and foot tricks vary the uses of their see-saw.

Although we have had a few chill days, keep the sun suits handy for several weeks. October's mid-day sunshine should find the home children basking out-of-doors in scanty clothes, storing up vital rays against winter's approach.

Pets Keep Them in the Open

Outside fun as long as possible for every child and a pet or two to play with will shorten the day and enrich the life. His very own dog, rabbit, lamb, goat or kittens will provide not only live play-fellows but wholesome occupation. Even the toddler enjoys feeding and watering his pets. It's good for him; it draws him outside, gives him a real responsibility. Every child should have a pet. The only child must have one or lack something big in his life.

MRS. GERTRUDE S. STEWART.



Storing Up Sunshine and Health for Winter's Dark Days

Electric Range Brings Juicy Roasts

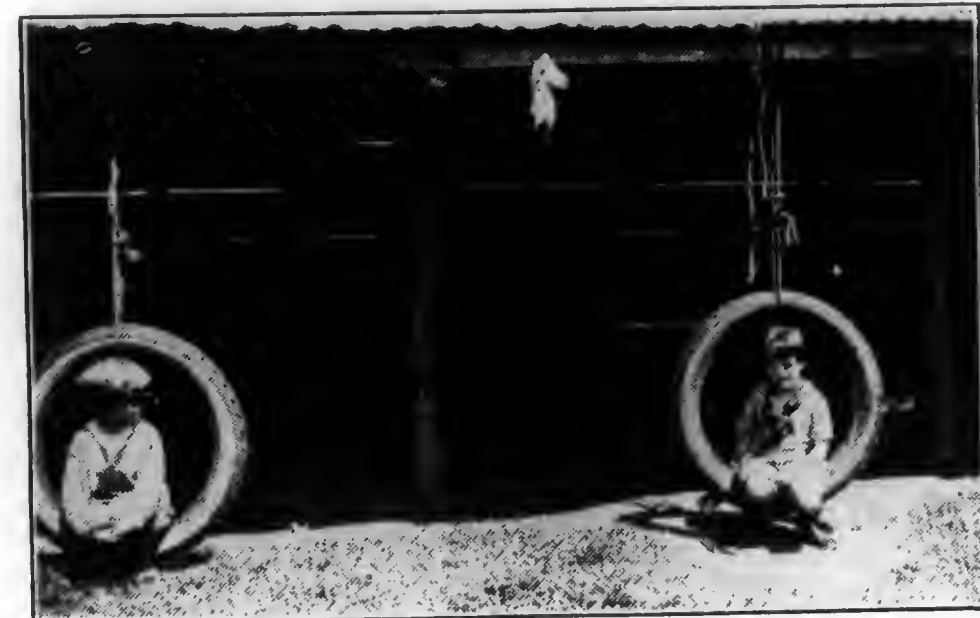
I HAVE been interested in collecting the experiences of country women who are using electric ranges. Not one would go back to her old range! They are enthusiastic. Those women using with electricity. Those women using ranges without heat regulation had difficulty at first in getting the oven temperature right. This feature adds about twenty dollars to the cost of the range, but is worth it. You can put your angel cake into the oven, then take it out 55 minutes later, perfectly baked. Pies, bread, puddings require no watching. It is a big waste of your own time, and of electric current to buy a range without heat regulator.

Let us consider also expense of operation. All electric ovens are well insulated, to hold in the heat, reducing fuel requirement. This insulation means

To be economical in using the top stove burners of the electric range, use utensils with flat bottoms, triplicate saucepans, waterless or pressure cookers. Turn off the current before the cooking is completed, and cook with it turned low when possible, as rapid boiling is less desirable for vegetables and cereals than simmering.

If you have wood on your place a combination range is desirable—it warms the kitchen and uses the wood when convenient, then in summer you have all the advantages of electricity as fuel. The wood burning part of a combination range can be bought separately, to place beside the electric range. It is handy for burning papers. Through the hot months it can be stored in the attic.

Some ranges have an outlet for at-



A Good Place to Play when Brother and Sister Are at School

a cooler kitchen, and more retention of moisture in all foods baked. It is not noticeable in pastries, but in roasts you will be surprised how juicy they taste, after cooking in the moist heat of the electric oven. In fact, this is the big difference between the electric oven and the ordinary oven which dries out a roast. Even a tough cut of meat will be tender and tasty when roasted in the well insulated oven of the electric range. No special recipes or methods are necessary when you cook with electricity. Follow the directions that come with the stove, using usual recipes.

taching laundry irons. This is an advantage in localities where the cooking rate is lower than the rate for lighting. If you have an individual lighting plant you can attach percolator or toaster to the range.

The newer ranges are much more rapid than the old electric ranges. When your neighbor who has used a range a few years tells you it is slow, bear in mind that this year's models are almost as rapid as city gas. They are indeed wonderful.

DORIS W. McCRAY.

Empty Hands and Minds Mean Trouble

MOST of us have learned through the experience of others, if not through our own, that there is more weariness in trying to do nothing than in following a daily round of tasks. Going visiting and being graciously entertained is really hard work and we seldom want more than a day or two of it at a time. Perhaps one of the attractions of motoring all over the country is that we never entirely let go of our daily tasks and familiar things. We must have meals as usual and there is a special satisfaction in getting old results in a new way.

Predictions that the automobile is a fad that will wane like the bicycle are not disturbing us. At least that will not happen without a period of hard times preceding it. The stupid and aimless "joy-riding", which was a part of the early history of the motor car, has waned and gone somewhere with an aim and a purpose has taken its place. Learning how other people live and what other sections of our country have been a worth-while experience. In fact the chief trouble we have with the automobile comes from the kind of hand at the wheel and of foot on the starter.

Empty Hands and Idle Minds

Perhaps nothing has done more to keep the farm owner on the farm than has the automobile. By its help everything really worth while is within easy reach of the farm—and all the best things of the farm are practically lost to the city-dweller. Being able to remain on the farm and keep a directing hand and mind on things has added years to many a vigorous life because it has kept within reach of daily light tasks and interesting exercise. The retired farmer of other days often rusted out in idleness and found no satisfying substitute for the friendly atmosphere of farm and barnyard. But today the ancestral acres with their many happy memories minister to both body and mind through years that are as serene as an October sunset.

There is a far more serious, and too often unnoticed, effect of empty hands among the young than among the old. It is not mere chance that gives us our ablest men from those who have spent their early years working with their hands. Without such work they could not have had the large brain development which later made them leaders among their fellows. Picture to yourself a map of the United States of 1776, with its fringe of thirteen small colonies along the Atlantic seaboard. How were the many miles of homes and people planted and spread over our broad land? Through mind—that had the vision of things waiting to be done and stirring ambitions to do them. So the child who lives on a farm where hands are busy and changes are made daily, hourly, wants to have a share in what he sees going on around him. He brings his hands into action and with the training of his hands, new paths are being worn in the sensitive brain; new brain cells are brought into use.

Value of Manual Training

Our schools more and more bring manual training into the course for the sole purpose of building brain by training hands and the proof of this has never yet been lacking. But nowhere is the opportunity for hand train-



for Your Kitchen

The modern trend of color, simplified construction and more beautiful appearance has made the new type of kitchen ranges more than just a household necessity. They are now a real decoration for your kitchen, one that will bring beauty, life and constant enjoyment into the busiest room in your home.

Come to a "tag" store and see the new styles and kinds of kitchen ranges that are such an improvement over the old fashioned ones. You must be sure to "see before you buy," too, in order that you may get a range of just the right size and kind for your needs, and one that will fit properly into the space you have available. At your Farm Service stores you are sure of honest and practical advice, of conscientious, personal help in the selection, and a price that will just fit your pocket book.

Come and see us about all of your heating problems and for such repair parts as you may need this fall.

Your "Farm Service" Hardware Men.



ing equal to the farm. No other work has the triple effect of training hand and brain and spirit, bringing joy to the home and the family where "we", together, achieve results. Every one knows how the children of the farm who have had work to do forge ahead of their mates of the same age who have had no work to do, no problems to face.

As the fringe of thirteen colonies, in 1776, are to the forty-eight states that reach from the Atlantic to the Pacific, so is the average brain of today to the brain that waits unused. No scientist has yet been able to fix a limit to the growth of the mind or the time when it ceases to grow. This much seems clear from man's experience. Work adds to brain growth and alertness; idleness checks and dulls it. Work in proportion to physical strength, constructive work with the hands directed by a thinking brain, is the best hope of the world.

HEPSY NEFF.

Silent Teachers for All

ONE way to help children acquire general information is to provide them with mail-order catalogs. Children are peculiarly interested in them and glean knowledge of machinery, furnishings of all kinds along with an understanding of the value of things. I have seen young folks at sales pay more for second-hand stuff than new would cost. If they had studied catalogs they would have known when a thing had reached its full value. Lucky is the child who has some one not too busy or too indifferent to take time to arouse his interest in the things pertaining to his everyday life.

ARABELLE M. SMITH.

FASHIONS AND PATTERNS

The sensible patterns shown on this page are becoming more and more popular with Stockman folks, as the directions are easy to follow, orders are promptly filled and the price, 15 cents, postpaid, or two for 25 cents, is less than half of the usual store price. Order by number and state size in all cases. Address Pattern Department, Pennsylvania Farmer, Pittsburgh, Pa.



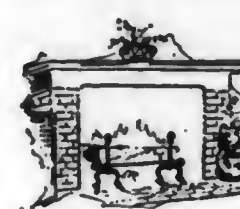
No. 2573.—For Classroom. This style is designed for sizes 8, 10, 12, 14 and 16 years. Size 8 requires 2 yards of 36-inch material with 1/4-yard of 32-inch contrasting.

No. 2611.—Tailored Styling. This style is designed for sizes 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3 1/2 yards of 40-inch material with 1/4-yard of 22-inch contrasting.

No. 3450.—Templing! This style is designed for sizes 16, 18 years, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3 1/2 yards of 40-inch material with 1/2-yard of 40-inch contrasting and 1 1/2 yards of ribbon.



ALLEN'S Parlor Furnace



Oldtime Fireside Cheer

In designing this new type of heater, ALLEN has made possible the enjoyment of happy hours in the frelight glow without a sacrifice of the comfort and convenience that are associated only with modern heating.

With its outer doors closed, ALLEN'S resembles a piece of beautiful period furniture. But when these doors swing open, you have the cheerfulness of dancing flames. Only in the patented ALLEN can you obtain this unique and desirable combination. Patent Nos. 69,731 and 16,677.



Throughout the land thousands of families enjoy the comforts of ALLEN heating: healthful moist-warm air circulated to every room in the house; ease of firing and removal of ashes; cleanliness that every woman appreciates. Beautiful walnut, porcelain enamel finish is easily dusted and polished with a rag.

Burns Wood and all other Fuels

ALLEN'S is especially designed (with large, double doors and oval firepot) for efficiency in burning wood. Thousands giving utmost satisfaction in wood burning sections. Burns other fuels with equal success. Special grates for hard or soft coal. Also a model to burn gas exclusively.

Heat Radiating Fins

Everybody wants more heat for less money. This exclusive ALLEN design and construction gives just that result. The fins double radiating surface of the heating unit thereby greatly increasing its capacity and saving fuel.

ALLEN MANUFACTURING CO.
Stove Specialists for Over a Quarter Century
NASHVILLE, TENN.

ALLEN MANUFACTURING COMPANY,
Nashville, Tennessee.
Please send me your Booklet: "Fireside Cheer."

Name _____
Street or R. R. _____
City _____
State _____

Live Broilers and Poultry Wanted

HIGHEST PRICES CHECKS SENT DAILY
Oldest Live Poultry house in New York City.
Established 1883, offers you an unlimited order for your live poultry. Write for shipping tags and free holiday calendar folder F.

Krakaur Poultry Co. Inc. Bonded
West Washington Market, N. Y. City. Commission Merchant

THE PERFECT HEMSTITCHER

AND PRICING ATTACHMENT
Easy to attach to your machine. Guaranteed to do as beautiful work as done by a \$275.00 machine. Only one dollar. Pay postman. Money back in five days if not pleased.

HEMSTITCHER CO., Dept. 422, Ft. Worth, Tex.

Advertisements

are short-cuts to finding out truths. The truths about everything you want to buy. The names in advertisements are names of solid reputation. The labels in advertisements are symbols of satisfaction. It pays to read the advertisements, for then you know what is good. The products they tell you about are being bought, tested constantly. The fact that they're still being advertised is alone proof of their worth.

"Mother, I Want a Silk Dress This Time"

The Question of What High School Girls Should Wear—and Where

"The beginning of all wisdom is to look fixedly on clothes or even with armed eyesight 'till they become transparent."

"Happy is he who can look through the clothes of a man (the woolen, the fleshly and official bank paper and state paper clothes) into the man himself."

Thomas Carlyle's "Philosophy of Clothes."

A HIGH SCHOOL sophomore was holding a telephone conversation with her mother. The daughter was a country girl, boarding in town while attending school, and the mother had called to tell her she was going to the city on the morrow and would buy material for a new dress for best wear through the winter months, and to ask what color the daughter wished the dress to be. It was evident from the school girl's part of the conversation that mother was arguing for a sensible dress of fine wool, but daughter was tired of wool, or "woosted," as she called it.

"Oh, mamma," she said pleadingly, "I've had so many woosted dresses; I've got so many now. I don't need another woosted dress; I want a silk one this time." And though they argued for several minutes daughter at last won her point and a silk dress it was.

A Handicap

It was a beautiful dress. I remember it well, though that conversation took place fifteen years ago. It was of heavy silk mousseline simply made but requiring more cloth than one made in the present style. It served as "best" during that winter and the next term it appeared often in the school room, although not regularly worn there.

There were other girls in that class who always had silk for party wear, but some were less fortunate. My own best dress was of the "woosted" variety and although neat and becoming and quite suitable for a fourteen-year-old school girl, it was as a common moth beside a gorgeous colored butterfly when seen in company with the bright new silk of my friend. As a consequence we girls of the "woosted hests" found excuses to remain away from the more formal of the high-school parties and were often uncomfortable at the more informal ones.

For Equal Terms

How much pleasanter all those parties might have been if the parents who could afford expensive clothing for their daughters had kept them in plainer raiment until school days were over. They would have been like a large family of sisters all neatly and suitably dressed without food for envy and discontent.

Even more today than fifteen years ago is the need for spreading the gospel of more simple dress for school girls. The mothers who are financially able to dress Jane or Ruth or Mary in whatever fashion or material they choose are the ones who can do most to bring about a much-needed reform. In those days silk stockings were only for best wear and were seldom worn at all except by the girls of well-to-do families. Today the girls all think they must have them to wear to school.

We girls never thought of rolling our stockings or using our powder puffs in public, but today bare knees, lipstick, rouge and extremely short skirts are much in evidence among girls of high-school age. And some of them are only copying mamma or grandma at that. There are many, however, I am very glad to say, who are sweet and simple and wholesome, and how refreshing it is to meet them.

Some schools, I believe, require all students to wear a certain uniform type

of dress. But such a rule, I think, would cause monotony and would be rather unfair to certain girls who might not wear such a uniform becomingly. A better way, to my mind, would be for all mothers interested to get together through the medium of the mothers' club or the Parent-Teachers' Association and establish certain common-sense rules for all to follow. Then if those mothers who can easily afford to dress Mary or Jane or Ruth in the finest of clothes would deny themselves the transient pleasure of gratifying their daughters' increasingly extravagant tastes and send them to

school and to school gatherings neatly, becomingly and sensibly dressed, I am sure much good would result from such a course.

L. O. H.

[It was once my good fortune to live next door to an intelligent English family, in which was one daughter. Moderate wealth had been in that home for generations. I heard that father say, "If silk cost 20 cents a yard and gingham cost 50 cents a yard my daughter would wear gingham." English good taste does not permit girls under twenty years old to wear silk. Silk is for "old dowagers."—H. N.]



A Faithful Dog and a Broad Lawn Keep the Small Boy Out of Mischief

Italian Pastes for Autumn

VERMICELLI is probably the least used of the Italian pastes, yet it is perfectly delicious. Macaroni, spaghetti and vermicelli, all of which are made from the glutinous flour of hard wheat, are most nourishing foods, and are becoming increasingly popular in this country. Being bland in flavor they require a tasteful combination with other foods especially butter, bacon, onions, tomatoes, green peppers and cheese.

Let us learn from the Italians concerning the preparation of flour pastes, to cook them right.

The water must be boiling hard, and only a little added at a time so that the boiling never stops. The pastes must cook only until tender, especially vermicelli. Never cook them too much or they'll be sticky.

"How about rinsing the starch off the vermicelli or spaghetti with cold water?" we ask. "No! No! You chill them and they must be hot."

Vermicelli Soup

Into two quarts of furiously boiling soup stock which has been seasoned with diced onion, tomato juice, bay leaf and several whole cloves, break about one cup vermicelli a little at a time so that the boiling does not stop.

Boil until vermicelli is tender, about six minutes. Serve hot in heated bouillon cups.

Vermicelli Supper

This dish needs left-over chicken for part of its content.

Add two cupfuls broken vermicelli to two quarts of rapidly boiling water. Cook until tender, drain and keep hot.

Clean and cut fine two bunches of celery and one green pepper. Boil until tender in water to cover. When nearly done add one cupful chicken gravy, left-over wings, neck, giblets and any other pieces of chicken on hand. When celery is done, add the

vermicelli to the boiling mixture. Pour into a hot vegetable dish and serve at once. If you don't believe this is a delectable meal, try it.

Chippewa Spaghetti

Boil eight ounces of spaghetti until tender. Drain. Boil until crisp six slices of bacon cut into small pieces. Toss the crisp bacon onto the draining spaghetti and add to the hot fat a cupful sliced onions and one small green pepper chopped. Turn frequent-

The Kitchen Cabinet

Home-Grown Hash Is Delicious

Corned beef hash when properly made is a treat. One can of corned beef is put through the grinder or chopped. An equal quantity of chopped raw potatoes is added, and the same or a bit less of thin sliced onions. Season with salt and pepper and mix well. Turn the mixture into a shallow baking pan that has been thoroughly greased with dripping. If the mixture seems dry, add a few spoonfuls of the stock from the beef. Bake in moderate oven for one hour. Serve hot or cold on your prettiest platter nicely garnished with parsley and pimiento. Catsup is nice to serve with this dish.

Hash made from boiled pork is equally good. In fact cold veal or lamb if thoroughly cooked may be similarly used. With these three meats it is best to use cooked potato. Chop the meat and potato, season as liked with salt and pepper. Add a little pimiento and moisten with sweet cream. Bake one-half hour. Serve with celery hearts as garnish.

MRS. D. B.

Corn Salad

A reader wants a recipe for corn salad. Here's mine; it's fine: Four sweet peppers, four hot peppers (if they're red and twelve ears corn cut from cob, two heads cabbage shredded fine, one tablespoonful mustard, one and one-half teaspoonful black peppers one tablespoonful salt, one-half teaspoonful celery seed, one-half teaspoonful mustard seed, three pints vinegar, two pounds sugar. Cook ten minutes after

ly and cook until tender and nearly brown. Have a one-pound or pint can of tomatoes and a bayleaf heating in the kettle which held the spaghetti. When boiling, remove the bayleaf and add the drained spaghetti, bacon, onions, remaining fat and one-third cupful grated cheese. Serve piping hot, as the main dish.

Macaroni in Casserole

Boil an eight-ounce package macaroni and a slice of onion in salted water until tender. Drain. Brown one-half pound ground round steak with four tablespoonfuls butter, one tablespoonful minced onion and a finely cut stalk of celery.

Make alternate layers of macaroni and meat in a buttered casserole. Pour over the combination one small can of tomato puree. Spread buttered crumbs over the top and bake one-half hour in a moderate oven.

FLORIS CULVER THOMPSON.

Send Them to High School if Your Can

IN answer to "Wondering Mother" as to whether to send her children to high school, I say send them and give them all the additional education that you can afford. I am not a teacher, not even an eighth-grade graduate, but we felt the need of our children having more education, so started them to high school. One son quit before he graduated, which is one of our greatest regrets. The fifth one is graduating this year.

High school is not the first step downward. Lack of Christian moral training is the first step. From my observation, the farm boys and girls who have graduated from high school are better morally than those who quit school when they were in the grades and went to town to work in the shops.

All honor to the farmers and the boys and girls. But all boys raised on the farm are not farmers and all farm girls don't want to be farmers' wives. Give them all the education you can afford. The boys will make just as good farmers, and the girls with a chance to make a living for themselves will not be so ready to marry the first half-baked cigarette sucker who comes along.

I could write a small book in favor of high schools, but for fear of being too lengthy will stop. Hope to hear from others. A SATISFIED MOTHER. Eric county, Pa.

The Fleming Boys Made Good with Their Bees

These Former Vocational School Students Produce Honey by the Ton

By Harry S. Berlovich

ALLAN FLEMING has achieved another of his life's ambitions—he is now a full-fledged, regularly enrolled college student, attending the Clarion State Teachers' Training School at Clarion, Pa.

And Allan says, "The bees are to blame."

Folks who know Allan and his brother Howard say the bees were merely incidental but that Allan has no one but himself to blame for going to school.

For the past four years Allan has been teaching a rural school in his

porch of their home is the market stand. Allan claims they have not yet been able to produce enough honey to care for the demand.

"Honey—The Health Sweet"

A big "Honey for Sale" sign stands at either end of the farm, which can be seen by passing motorists and over the entrance to the apiary he has a sign reading, "Honey—The Health Sweet". These signs together with the immaculate appearance of the apiary and the view one gets while driving by are mighty good advertising features. Then, of course, each package that leaves the farm bears their name and address.

Lost Everything—and Started Again

The winter of 1925 dealt the boys a terrific blow, as they lost their entire stock.

Did this discourage the boys? You guessed right—it did not.

They immediately went in debt for 20 more queens and started all over again. By the time the season was over they had sold 1,000 pounds of honey for \$300. The bees had cost them \$80. This was in 1926.

They started 1927 with 15 colonies, having lost five queens over winter, and by the end of this season they had sold 3,000 pounds of honey for \$900. That fall they bought eight more queens.

All of the 23 queens came through the winter of 1927 in great shape and this spring the boys had a mighty healthy and hard working brood of bees—50 colonies of them, counting the 27 additional ones they bought. Allan estimated they would market between 10,000 and 15,000 pounds of honey this year at 30 cents a pound. I haven't seen the boys for several months, but judging by their past performances I am inclined to believe Allan's prediction will be fulfilled.

Along with showing considerable ability as bee raisers, these boys are making a name for themselves as keen "marketers" and advertisers.

They Believe in Advertising

In the first place concerning their apiary and layout. The Fleming farm is on the Lakes-to-Sea Highway, one of the heaviest travelled in that section of Pennsylvania. Allan planned the apiary and rented, from his father, a plot of ground 300 feet long and 60 feet wide, fronting the road, exactly across from the house. A six-foot tight board fence is on three sides of the apiary with the front being fenced in with ordinary chicken wire, which gives the passersby a fine view of the layout and bee yard. The boys have their 50 supers neatly painted and placed on the well-sodded plot, with each having ample room around it. In the rear of the apiary is the work house. Here the supers are built, the honey strained and packed and made ready for sale. Everything is spick and span.

Stretched flat on the ground, extending about 18 inches outside the fence, on all sides, is a strip of chicken wire. This wire keeps the moles and other pests from boring under the fence and doing damage inside. Not a bad idea. Allan says he got the hunch from a bee book he had read somewhere. Incidentally the library of the Fleming boys on bee culture is just about as complete as can be found most anywhere and there are plenty of indications that the books and pamphlets have been used.

The boys have a big easy chair in the midst of their apiary where they sit for hours at a time just watching over their charges. You will find very few cases of swarming in their apiary and the attention they give the bees is no small reason for it either. Directly across the road on the front

Howard won a prize on his project, which gave the boys considerable encouragement. The boys, after deciding to build a commercial apiary, worked out an agreement between them. Allan was to continue teaching school in the winter and work with the bees and attend summer school and Howard, in charge when Allan was not available, was to put in much of his time helping his father farm the home place.

And now, the first time since starting their business, the apiary is able to permit Allan to attend college and work for his teacher's certificate. Howard's turn will come when Allan is through school in all probability.

However, more interesting than the personality of these two young men

Very little honey is sold in combs, according to Allan, but practically all is strained and sold in either one-half pint, pint or quart jars or five-pound tins. Here's a schedule of prices they have posted on their market stand—they have been the same since they started and Allan intimates there will be no change:

1/2 pint jar	30 cents.
1 pint jar	45 cents.
1 quart jar	75 cents.
5 lb. pail	\$1.00
1 lb. comb	30 cents.

"We have an excellent location for a roadside market," explained Allan, "and there is no reason why Howard and I should not be able to make this proposition go across in great style."

"And another thing—we are ideally situated so as to raise a lot of honey and some fine bees. First, we are in a clean and healthy section; second, our bees have thousands of acres of clover and buckwheat to feast on—our neighbors grow a lot of clover and buckwheat."

"We like our work with bees, and I really believe the bees appreciate our efforts. Perhaps I am wrong, but to me a bee is almost human and responds to kindness even more readily than many humans I know."

"Now we have little trouble with swarming and have had little loss of bees at any time and you can see how I can walk in and among them without either mask or gloves."

Teaching Comes First

Although Allan has long wanted to be a school teacher, possibly a superintendent or principal, he has found that bee culture has an attraction for him which is difficult for him to resist.

"I want to teach school to the rural students," says Allan, who does show considerable sagacity for one as youthful as he. "Our rural school system is just starting to develop along the right lines and I would certainly deem it a pleasure and privilege to have a part in the program which is certain to come about with the further development of the rural school."

"Teaching will always be my vocation and bee culture my avocation—for I am nearly as much interested in the bees as I am in teaching. In fact it is the bees that I can thank for permitting me to further my ambitions, from an educational standpoint."

When Allan first started with his bees, he thought so well of them that the first winter he kept them in his own room—even yet he has a small swarm in an improvised "super" in his window. However, we don't know if the close proximity of Allan had anything to do with the bees winter-killing that first year or not, but we do know that he no longer attempts to house them in his room during winter.

As a matter of fact the boys have

built several big storage boxes in which the bees are placed over winter and since the introduction of these boxes they have had little trouble in wintering the bees.

"Our apiary will inventory, today, at least \$3,000," stated Allan, "and when we started it wasn't worth much more than 30 cents. However, everything we have was earned by the bees and the increased value is due primarily to the fact that Howard and I build most of our equipment. Although our inventory shows \$3,000, it would take considerable more than that to buy us out."

Keep Records and Carry Insurance

Records are now kept on each super, in fact on each frame in the super. The boys carry fire, hail and theft insurance on their business and are very punctilious about watching details.

"If we care for the details, the big jobs will care for themselves," is the philosophy of the Fleming boys.

This is just the beginning of the story of Allan and Howard Fleming, if the prediction of County Agent Winslow of Jefferson county and Frank Miller, county agent in Clarion county, is any criterion.

The Fleming farm is midway between the county seats of both counties and the boys don't hesitate to take advantage of opportunities in consulting either or both these agents.

When the boys started with their bees, some neighbors scoffed, "that the Fleming boys have bees in their bonnets"—and the neighbors were right, literally speaking, and furthermore, Allan says they will continue having "bees in their bonnets" for a long time to come.

Anyhow, the efforts of the Fleming boys stand out as a remarkable tribute to the enterprising young agriculture of today—the farmers of tomorrow. Allan is now busily occupied in his studios efforts and Howard is undoubtedly priming himself to follow his brother's footsteps—and who is there who can criticize them for that?

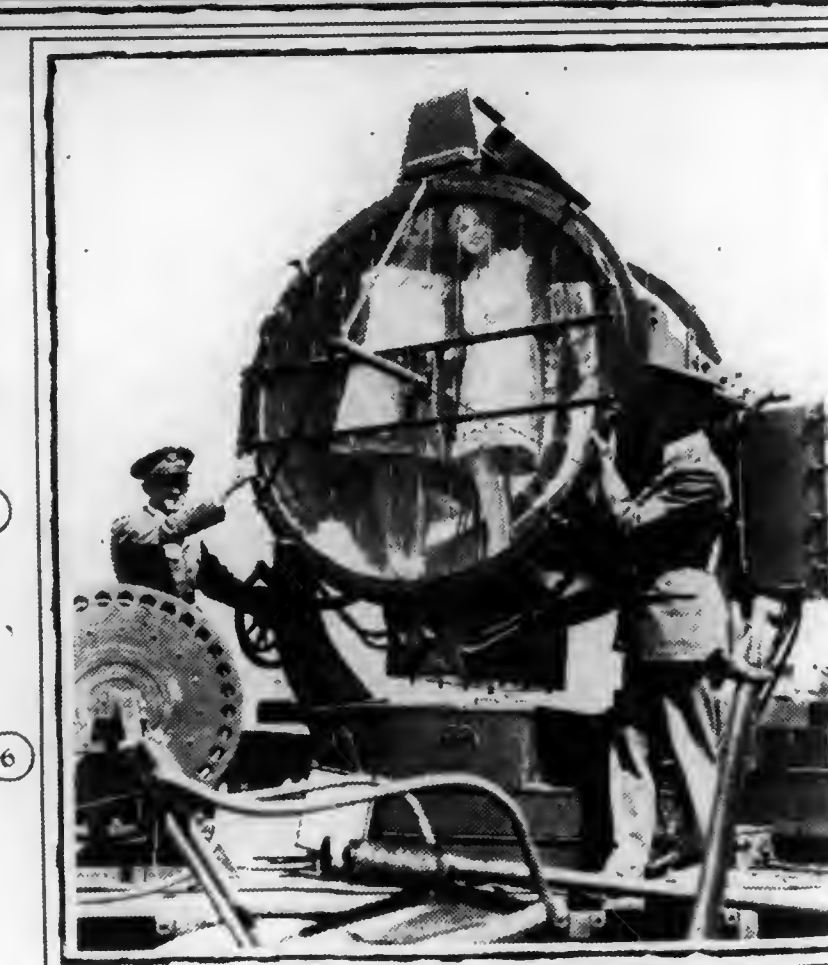
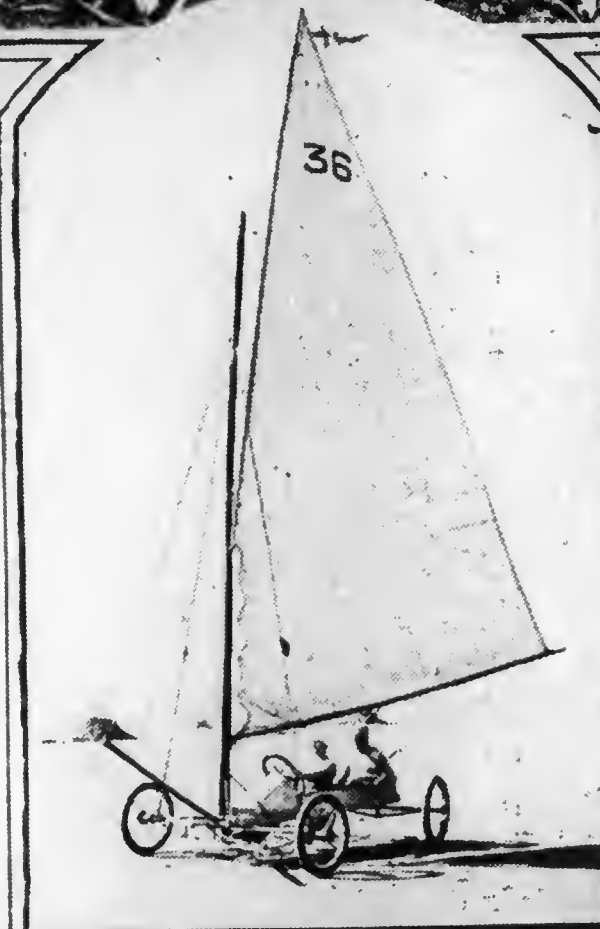
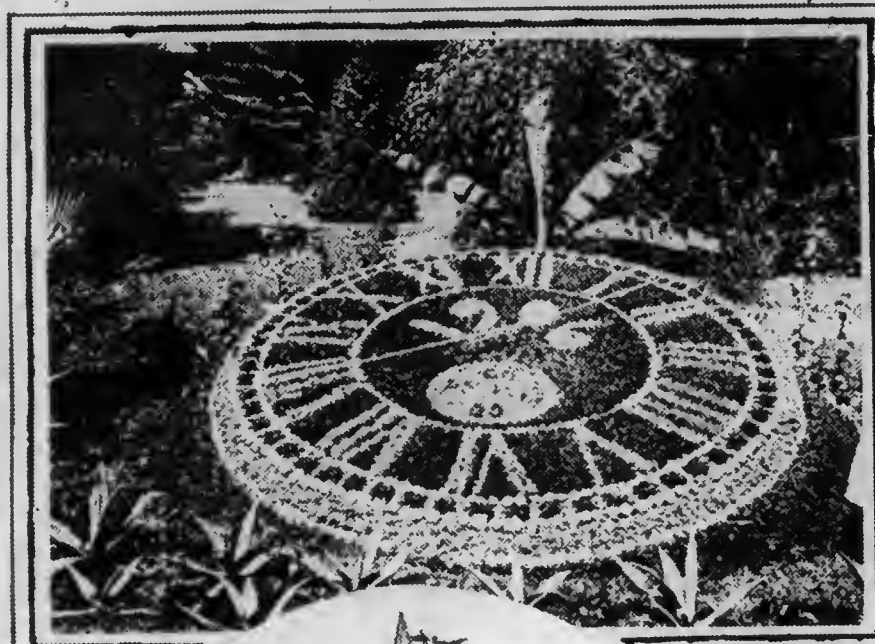
A Boy's Flock



I am a little boy 11 years old. My home is at Morgantown, W. Va., and I stay at my grandfather's during the summer after school is out. I am sending you a picture of myself and my sheep. These lambs are two sets of twins and all belong to the ewe which I raised as a pet. Her name is Cleta. The small lambs were one week old when the picture was taken.

RALPH RENNER.

EVENTS CAUGHT BY THE CAMERA



(Copyright by Underwood & Underwood)

1. Hundreds of tiny plants and flowers cover the face of this clock at the Kurgarten, Interlaken, Switzerland. And it tells the correct time, the mechanism being in a sealed case beneath the flowers.
2. Just like unveiling a marble statue! This tractor company staged elaborate ceremonies when a new model was presented to the public at the California State Fair.

3. It's a beachmobile. Sailing on the sandy beach is the latest sport in France.
4. On its way to the South Pole. The monoplane which Commander Byrd will use in his Antarctic Expedition, just before it was loaded for shipment to the far south. He named it the Floyd Bennett, after the man who piloted him across the North Pole.
5. The largest piece of optical glass ever made in the United States. An eight-inch hole has been bored through the center.
6. This 4 1/2-ton portable army searchlight has an illuminating radius of 25 miles. Notice the two girls inside this two billion candlepower "lamp."

Bennett, you remember, died while trying to carry aid to the stranded Bremen fliers.
5. The largest piece of optical glass ever made in the United States. An eight-inch hole has been bored through the center.
6. This 4 1/2-ton portable army searchlight has an illuminating radius of 25 miles. Notice the two girls inside this two billion candlepower "lamp."

September 29, 1928

Farmer's Business Letter

OUTSIDE of strictly top steers the cat-the market showed a further decline this week, the price loss for the two weeks ranging up to \$1.50 on some grades. While an \$18.00 top was again made, on 1,255-pound steers, with \$18.50 for yearlings, cattle selling at around \$17.00 at this week's close were about as good as those bringing \$18 a week ago. In the calf club auction this week 356 head of baby beefs were sold at an average of \$17.46, with a top of \$20. A few unfinished calves were brought in, selling from \$15 down to \$8.50. Cattle receipts for the week at leading points showed quite a gain over last week, and over the same time last year. The run of westerns was liberal at some points. Feeder trade was slow at the week's close, and prices some lower. The weakness in fat cattle was evidently partly responsible. Yet the top price of the feeder season was made when an Indiana man took out two loads of 1,046-pound Wyoming cattle at \$15.25. They came from a purchased herd and were strictly fancy. The stocker and feeder market was quoted 50 to 75 cents lower at the end of the week, with a rather liberal offering accumulated. Quality was better than heretofore, with medium to good grades of feeders moving mostly at a range of \$12 to \$13.50. Stocker and feeder movements from nine markets was quite a bit larger during July and August than during the same months last year. It is difficult to get an expression of opinion on the near future of the beef market, though feeling seems to lean toward an upward reaction from the decline. Western beef is having an influence, filling a retailer demand for cheaper cuts. And where well ripened before being cut, and when properly cooked, it quite satisfies the consumer's hankering for beef.

Hogs Much Lower
Hog receipts were moderate this week, about the same as last week, but quite a little smaller than the same week last year and two years ago. But compared to the close of last week the market was 60 cents to \$1.15 lower, sows showing the most decline. It was a packer market, due to light shipping demand. Only 17 per cent of receipts went to shippers, against 36 per cent last week and the week before. Shipping orders were unusually light during the last half of the week and that is when the market was pounded hardest. Average weight of the week was 240 pounds against 15 to 20 pounds higher at this time last year. Weight is running lightest since 1917, for this season of the year. The price decline was unexpected and was the result of conditions not usual at this time of the year. It is felt that it is too early for the fall break, and a reaction is expected. Whether it will carry prices back to a top of \$13.50 is doubted by a good many in the trade. An acute shortage would doubtless be necessary now if prices were to go higher than that during the next three or four weeks.

Hog Supply and Storage Pork
The total supply of hogs at eleven markets is coming about the same as during September last year, when receipts were modest for the month since 1921. The supply is now on is expected to be moderate and at the same time the pork storage situation is rapidly improving. The combined total of pork products on hand September 1, including lard, at \$51,032,000 lbs., showed a drop of 288,747,000 lbs., compared with two months ago, while the decrease during the same period a year ago amounted to only 45,525,000 lbs. Lard in the two months fell off 36,233,000 lbs., while a year ago during the same time had increased 9,700,000 lbs. Total stocks of all kinds on hand on the first day of the month showed a decrease of 14 per cent compared with March 1, when the spring accumulation started. Last year, on September 1, 1927, total stocks were 933,436,000 lbs., showing an increase of 25 per cent compared with March 1, 1927. Where last year storage was piling up, this year it has declined. During the first two weeks of this September about 14,000,000 lbs. of lard moved out of storage in Chicago alone. The total amount of lard remaining on September 15 was only 8,000,000 lbs. larger than a year ago on the same date.

Further Break in Lambs
Receipts of sheep and lambs were smaller than last week, but at 110,000 still plentiful. The market was lower again, with the average on lambs \$13.70, against \$14.55 last week, and \$13.95 the same week last year. A change in the position of top fat and top feeder lambs took place during the week. On Monday top feeders sold at \$14.75 and killers at \$14; Tuesday top killers \$14 and feeders \$14.25; Thursday top feeders \$14 and killers \$14.15; Friday top feeders \$14 and killers \$14.25. A 50 to 75 cents decline in feeder lamb prices during the week was due to liberal receipts, 352 cars of range lambs coming in against 347 last week and 203 the week before. Yet demand for feeders is large, with Illinois, Indiana and Michigan taking the bulk of the supply, though orders are here from as far east as New York and Pennsylvania, with Maryland, Kentucky and Virginia also in the market. During August there was an increase of 44 per cent in the number of feeder sheep and lambs sent to the country from all markets. The total at 564,267 was 30 per cent above the August average of the past five years. Lamb feeding will be very heavy this season, and it is easily possible that the market may be overloaded when they start coming back.

Grain Trade Continues Slow
Wheat trade is still in the dumps. Weakness continues and prices fluctuate within very narrow limits. Canadian farmers are making heavy deliveries to local elevators, the record for a single day being broken early in the week with receipts of over nine million bushels. Much of this, however, is being held off the market by the pool. A government report issued this week says: "Forecasts and estimates of crops in 29 countries of the northern hemisphere total about 3,188,000,000 bushels, as compared with about 2,987,000,000 bushels produced in the same countries last year. These countries last year accounted for 84 per cent of the estimated production of the world exclusive of Russia and China. Southern hemisphere crops are still to be determined. Conditions have been favorable for seeding and prospects for the crop to date appear to be as good or better than at this time last year. Both Argentina and Australia have increased areas. Reports indicate that the Australian crop is now in need of rain. Considering the carryover and the increased production in the northern hemisphere, average yields in the southern hemisphere would provide a world supply of wheat, outside of Russia and China, about four per cent larger than the supply available for last season. The prospective increase in the world's supply of wheat outside of Russia and China may be offset to some extent by the short wheat and rye crops in Russia, short corn crops in the Balkan countries and smaller potato crops in northern Europe."

On this are based predictions of higher wheat prices later in the crop season, but the immediate future holds forth no promise of advances.

Corn futures lost a little ground this week, except the March, which at around 80 cents was a little higher. It has been splendid weather this month for maturing the corn crop, much of which is now harvested, and practically all of which is matured beyond frost injury.

Produce future gained a little during the week and look plenty high compared to other grains.

Trade in Farms
Trade in farm lands is fairly active, more so than it has been, but spotted as to price. Apparently a feeling is developing that prices have reached bottom, and for that reason some are finding land an attractive investment. According to a northern Illinois auctioneer an 85-acre farm that sold in 1902 at \$50 recently brought \$100; a 140-acre farm, at \$35 in 1895, this year brought \$55; two farms at \$120 were valued at \$250 during the high time; 302 acres at \$85 was listed some years ago at \$150; a farm at auction sold at \$175, no one bidding but the house; 142 acres at \$122; a farm sold at \$77.50, for which a bid of \$125 was refused five years ago; a farm offered at auction without a bid. Some other Illinois farm sales recently

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quoted are: 80 acres at \$180; and 141 acres at \$187.50.
In Iowa some recent sales have been made at the following figures: 60 acres, \$200; 80 acres, \$151; 100 acres, \$150; 80 acres, \$200; 170 acres, \$127.50; 60 acres, \$130; 110 acres, \$141; 480 acres, \$135; 160 acres, \$140; 220 acres, \$134; 100 acres, \$129; 80 acres, \$201.25; 80 acres, \$175; 100 acres, \$160; 125 acres, \$200; 80 acres, \$200; 80 acres, \$80; 240 acres, \$185; 200 acres, \$175; 160 acres, \$72; 140 acres, \$165; 120 acres, \$235; 160 acres, \$106; 80 acres, \$180.
This is a sufficient number of prices to give a fairly good idea of trade. The

range of course is due largely to differences in equipment, fertility and acreage under the plow.
Iowa Big Butter State
The creamery business is thriving in Iowa. The state shipped 5,004,250 pounds of butter to the three large markets, Chicago, Boston and Philadelphia, during August. Minnesota shipping 13,400,000 pounds and Wisconsin shipping 6,115,000 pounds to these same markets, were the only states ranking above Iowa. In the year 1927 Iowa shipped 48,533,000 pounds of butter to these markets. WATSON, Chicago, Sept. 22, 1928.

Eastern States Exposition

ON Wednesday of last week, Secretary C. G. Jordan, Henry Klugh and I attended the Eastern States Exposition held at Springfield, Mass. We went as a committee representing the Farm Products Show Commission of Pennsylvania to study the plant and the methods used in conducting this fair, one of the largest of our eastern agricultural fairs. The day was stormy and the attendance small, but no handicap for the purpose for which we went.

The Eastern States Exposition is sponsored by business men of the New England states, whose primary purpose is to stimulate public interest in the agriculture of this region. The plant has been established ten years, this being the eleventh fair held. It is well supported financially and its success is indicated by the fact that it has paid all running expenses, paid 7 per cent on the investment and money has been left to add new features each year. The total attendance last year was 280,000; this year's attendance may run over 300,000. The license plates on the cars on the grounds indicated that the fair is supported and attended by people from all the New England states.

As one enters the grounds he is particularly struck by the absence of a midway, and the lack of this feature apparently has not affected the success of the fair. In the center of the grounds is a large coliseum where all livestock judging is done and where even on this rainy day with a small attendance, eight or nine thousand people were sitting comfortably on the seats around the arena watching the judging of the various classes. Each evening shows of various kinds are put on in this building. The sale of tickets to the horse show here on Tuesday night ran close to 10,000 paid admissions.

The livestock buildings are modern, roomy and well equipped. There is a large building for the beef cattle, another for the dairy cattle and another for the horses. Undoubtedly a drawing card bringing to the fair some of the best exhibitors of livestock in the country is the large premium list amounting to \$33,000 this year. There is a large industrial building housing commercial exhibits of all descriptions, a building with 123,000 square feet of space and every available square foot sold out this year. This building nets a nice income to the Fair Association.

The Boys' and Girls' Department is well equipped, having an exhibition building of 20,000 square feet and another building for housing some 600 boys and girls. With an appropriation of \$5,000 from the Board of Directors of the fair, this department has built up a program that is not only stimulating boys and girls to greater effort in agricultural lines but is a distinctive asset to the fair as a whole in attracting patrons and offering exhibits of public interest. We found here six Pennsylvania boys and three Pennsylvania girls taking part in the program, boys and girls whose total expenses were taken care of by the Fair Board, together with equal representations from twelve other eastern states. The exhibits by the various states are interesting for in them they feature their more important resources.

In mingling with the various livestock exhibitors, we felt proud of the fact that Pennsylvania livestock breeders were more than holding their own in the various contests. For example, the Percheron exhibited by the Montclair Farms of Phoenixville, Pa., were carrying off premier honors, having won both the grand champion stallion and grand champion mare. The herd of Herefords exhibited by the St. Amour Company of Mortonville, Chester county, carried off premier honors in the grand champion classes of this breed. H. E. Robertson with his string of Holsteins won a good share of the ribbons in

this breed. The herd of Berkshires from the Sycamore Farms of Douglassville, Pa., won both the senior and grand champion for boars and the same for sows. P. W. Miller, the Guernsey breeder of Wayne county, showed the senior and grand champion Guernsey bull.

PHILADELPHIA PRODUCE
Philadelphia, Sept. 22.—Receipts of nearly by tomatoes were light on the Philadelphia market and fancy stock advanced sharply. Most sales ranged from \$1.15 per % basket, with fancy lots bringing \$2.25, according to the Pennsylvania and Federal Bureau of Markets.

String beans were in liberal supply and weaker. Green and wax beans sold mostly at 30¢ to 35¢ per % basket, with a few fancy lots up to \$1. Lima beans were weaker and brought 30¢ to 40¢ per bushel. Beets and carrots were steady and sold mostly at 40¢ to 50¢ per bunch.

Cabbage was steady and sold at 40¢ to 50¢ per % basket, with a few sales up to 75¢. Corn was weaker and brought \$1.02 per sack of 100 ears. Eggplant sold at 25¢ to 30¢ per % basket, onions at \$1.15 to \$1.25, bullhouse peppers at 25¢ to 40¢ and red peppers at 25¢ to 30¢.

Pennsylvania mushrooms held steady at \$1.15 to \$1.75 per three-pound basket, while wired celery sold at 10¢ to 12¢ per bunch. Hubbard squash sold at 30¢ to 35¢ per % basket, Boston squash at 40¢ to 50¢ and pumpkins at 30¢ to 40¢. Sweet potatoes continued dull and brought 60¢ to 75¢ per % basket. White potatoes were dull and sold at \$1.75 to \$1.85 per 150-pound sack on the earlot market.

Apples moved slowly with Smokehouse, Grimes Golden and Jonathan selling at 50¢ to 1.25 per bushel. Delicious brought \$1.25 to \$1.75 per bushel, with a few fancy lots bringing \$2.25. Peaches were scarce and nearby Elbertas brought \$1.15 to \$1.75 per % basket. Grapes were in liberal supply, but prices held steady at 75¢ to \$1 per % basket. Cabapples sold at 30¢ to 35¢ per % basket.

CASH RAISE
Chicago, Sept. 24.—The following cash prices ruled here today: No. 2 red wheat, \$1.46 to \$1.50; No. 2 hard wheat, \$1.17 to \$1.21; No. 2 yellow corn, 85 1/4 to 86; No. 2 white oats, 43 1/2 to 44; No. 2 rye, \$1.08.

COMING EVENTS
Oct. 24.—Fair, Burgetstown, Washington county, Pa.
Oct. 25.—Fair, Newfoundland, Wayne county, Pa.
Oct. 26.—Fair, Doylestown Fair Association, Doylestown, Bucks county, Pa.
Oct. 18.—Fair, Columbia County Agricultural, Horticultural and Mechanical Association, Bloomsburg, Columbia county, Pa.
Oct. 26.—Fair, York County Agricultural Society, York, York county, Pa.
Oct. 35.—Fair, Upper Potomac Fair, Burlington, W. Va.
Oct. 25.—Fair, Ligonier, Westmoreland county, Pa.

Five states will send representatives to the fourth annual Ohio Valley Regional Conference on State Parks, to be held at Chelvey Park (Washington Farm), near Wheeling, W. Va., October 10, 11 and 12. This will be the first meeting of this type to come to West Virginia. Foremost among West Virginia's problems and one that will be given consideration at the Wheeling conference is that of the acquisition of state park land.

P. S. Brenneman, president, Dairymen's Cooperative Sales Company, is ill with erysipelas at his home near Jefferson, Ohio. His many friends will wish him a speedy recovery from the hands of the doctors.

Every pneumatic tire bearing these familiar names
—the roll-call of a great industry—is guaranteed
against defects in material and workmanship,
without limit as to mileage or time.

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Badger	Federal
Belmore	Fidelity
Brunswick	Firestone
Columbus	Fisk
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Corduroy	General
Denman	Giant
Diamond	Goodrich
Dunlop	Goodyear
Empire	Hartford

Frank C. Andrews
Director General of THE RUBBER INSTITUTE, Inc.

—an association of manufacturers organized "to promote in the industry a mutual confidence and a high standard of business ethics; to eliminate trade abuses; to promote sound economic business customs and practices; to foster wholesome competition; . . . and thus generally to promote the service of the industry to the public welfare."

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India	Mohawk	Revere
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Lee	Northern	Standard Four
Leviathan	Norwalk	United States
Mansfield	Overman	Victor-Springfield
Marathon	Racine	Viking
McClaren		
Michelin		

This announcement, issued simultaneously in all parts of the country on August 16, met with an instant response from car owners and tire merchants alike.

No man who reads this will have failed to see similar announcements in the windows of tire stores—copies of the warranty displayed on dealers' walls—newspaper advertisements by individual manufacturers and by dealers confirming the policy.

For it is the voice of the industry, representing the producers of over 95% of the tires made in America.

It is the acceptance of full responsibility for the merit of their product by manufacturers who have learned that real quality means more to their customers than definite mileage guarantees.

Years ago these standard manufacturers discontinued the outworn practice of guaranteeing a definite number of miles in order to sell their tires.

As a selling inducement the so-called "mileage guarantee" was inevitably pushed

beyond all reasonable bounds. It resulted in unjustified allowances to the unscrupulous driver who abused his tires and misrepresented his mileage, thus penalizing the careful driver who took care of his tires and was honest in his claims.

With its passing, all tire users felt the benefit at once on lower tire costs. Today you pay less for tires than ever before in history. Few, if any commodities, show so steady a reduction in prices.

The art of tire building has improved as well, until the casing and tube you buy today can be counted on to carry you more miles than was thought possible even so short a time as five years ago.

The unlimited guarantee of quality is the natural outcome; the warranty against defects for the life of the tire is a final expression of the manufacturer's confidence in his product—

—a guarantee broader in its protection to the individual yet fairer in its operation to all than anything ever offered to the car-owning public.

WIDESPREAD LOCAL SERVICE

THE HUNDRED THOUSAND DEALERS widespread throughout the country who handle the standard tires named above and who display this warranty, add a further value to your purchase in the services they render locally for your immediate convenience . . .

- giving expert advice on proper size and type
- mounting and dismounting
- checking inflation
- checking wheel alignment
- maintaining repair service

By availing themselves of these expert facilities, car owners have secured maximum mileage from their tires. The workmanship of the tire-builder and the services of the tire dealer are thus linked together in support of the manufacturer's warranty.

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"Every pneumatic tire of our manufacture bearing our name and serial number is warranted by us against defects in material and workmanship during the life of the tire to the extent that if any tire fails because of such defect, we will either repair the tire or make a reasonable allowance on the purchase of a new tire."

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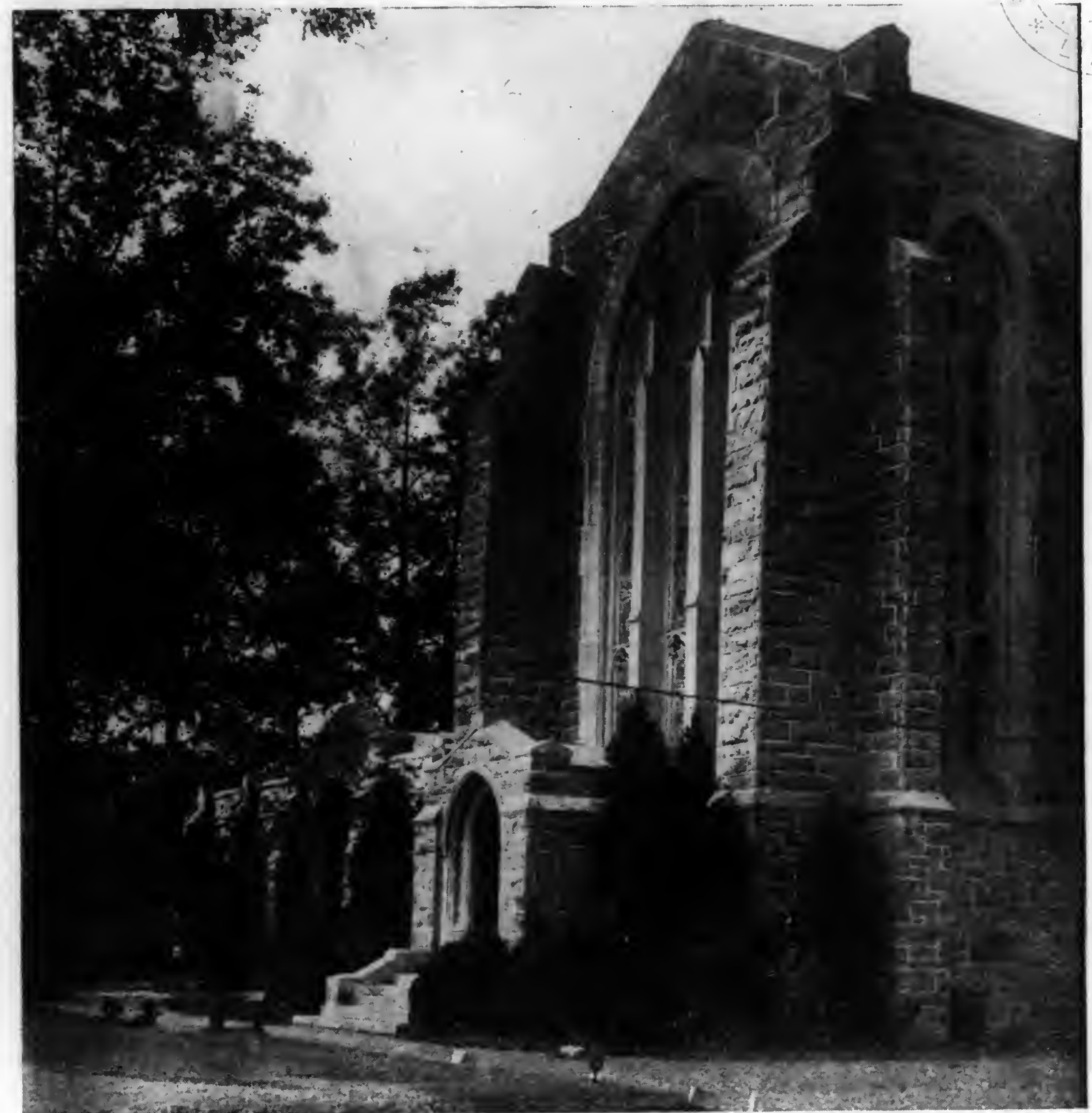
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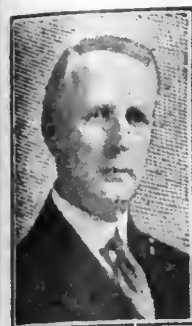
PENNSYLVANIA FARMER

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Farm Facts and Fancies

By ALVA AGEE

WE can't make a satisfactory living out of the business of supplying bread to Europe. The fact is obvious, and yet the effort is kept up. The acreage of wheat is being increased, and we go to market in competition with Canada and South America and the rest of the world. Europe needs to grow her own grain for bread as far as possible, and we get ready to increase our surplus that must go into the world's markets next year in competition with cheap land. The government can favor agriculture in many ways, but no power on earth can get us a good living from feeding peoples who must have, and can get, cheap supplies of food. Wheat is something they will get in normal years at a relatively low price. It is not the time to increase acreage.



Keeping One Jump Ahead
This would be a great country for farming if we had not added to the producing area ahead of time of need right along—our own need and that of others—and of course we could sell only in congested markets. And we do not take the lesson of the past to heart. The government goes along reclaiming arid land, inducing people to settle on it, and at the same time pushing other projects for developing the land. The officials in charge have the wrong viewpoint. If the bureau must be maintained, it should be with the understanding that they do nothing. Too much has been done now. We keep a considerable jump ahead of market demand. Leave new land for the day of need. There is no farm relief in increasing competition.

The Other Side

There are two sides to most questions, even though they be lop-sided, and we want to be fair in all we say. I am in daily contact with people whose interests are bound up in increasing the water supply for cities and towns in this dry western country, in getting plenty of power for manufacturing, and in getting water for their arid land. They feel a good deal as I suppose the early residents of the rich country west of the Mississippi felt when they wanted the government to make grants to railway companies so that transportation lines would be built. They want development of natural resources. A fair-minded man can sympathize with them in their aims, but the methods should not be at the expense of eastern farmers. The city water problem is serious, but dams of moderate size, built at the expense of those to profit by the investment, can insure water. Power from water should be made available by power companies, at their own expense, when a profitable market for the power exists. Big irrigation projects should be discouraged until a greater demand for food exists in this country. It is not the time for ventures of this sort at public expense.

Attractive Homes

A friend living on the Coast has never been in the East, and wondered what season of the year would be the best for such a visit. California takes pride in the beauty of her trees, shrubs and flowers, but it has nothing to surpass the attraction of bluegrass and hard maple trees in October. We wanted this person to see the East at its best, and the visit is being made now. What a pity that the daily sight of

such trees and bluegrass sods can dull appreciation! They can make an humble house look mighty attractive as a home. Why be repeating this at least once every year? Because so many homes remain without the trees and grass. Only a little labor is needed, and nature does the rest. Every dwelling house should have some trees near it. Trees, grass and paint add value—cash value and living value—to a home. This generation may be using enough paint, but too small a part of it is going on buildings.

Cheap Nitrogen

Lime and phosphorus make bluegrass grow. They were in the stone that made the soil of Kentucky's bluegrass region. What keeps up the nitrogen supply? We talk about the bacteria that need legumes to live with, and forget the immense work of other bacteria that are serving us in the same way without the assistance of plants like clover. Nowhere are they more plentiful and active than in a bluegrass sod that is supplied with lime and phosphorus. The heavier such a sod becomes, and the ranker the growth, the greater the number of bacteria converting nitrogen from the air into available form. A man whose land grows bluegrass never goes over the hill to the poor-house.

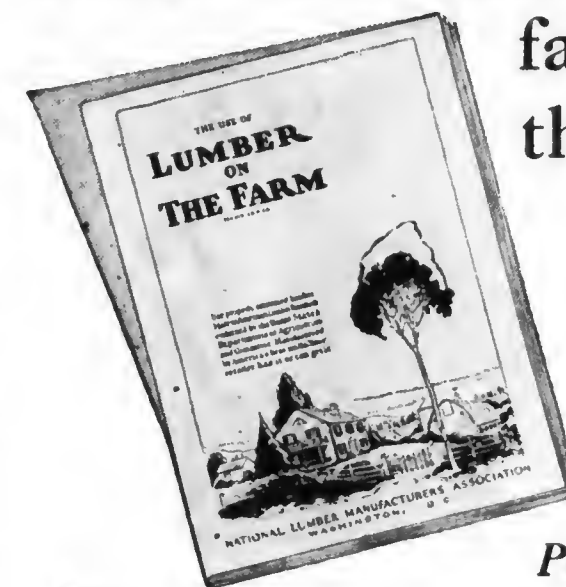
Hustling Us Along

I wonder whether we should not get along better if we did not leave our affairs so much to expert management. The experts are enthusiasts and rush us a bit too fast for our welfare. We owe our wonderful progress in highway improvement to the organized effort of various groups, but we also owe too much to the roads. Probably experts in education know far more than the ordinary man about the facilities—the buildings and equipment, the grade of teachers, and the months per year a child should be in school—that are ideal, but the family at home usually does not have an income approaching fifty per cent of the ideal. Tax-payers should be stirred by officials, it may be, to provide county buildings in which proper pride could be taken, but the stirring should follow, and not precede, a basis for some reasonable pride in the farm buildings of the county. We may grant that one way may be better than another, but it isn't really better unless we can afford it. One can lend himself to being managed to that degree that he loses the ability to manage to pay what he owes. The conservative element of a community knows about what it can afford, and that knowledge should limit a program of progress. If the laymen had a greater voice in affairs we might not travel so fast, but we would come nearer to paying as we go. It doesn't pay to get too hard up financially.

The Soil's Right Side Up

Some modern farm implements are cutting down the use of the breaking plow. Of course we need the plow, and rich land will stand being inverted often because good soil always is brought to the top, but thinner land, with its supply of organic matter within a few inches of the surface, starts a new and heavier sod more easily when it is left right side up. Deep plowing of poor land buries the owner's chance of a successful seedling. It is all right to be trying to deepen one's soil, but we do not hasten the matter fairly by deep plowing unless we are putting down a liberal amount of vegetable matter. It is a good thing that harrows can make a seed bed and leave organic matter on a thin soil where it is most needed.

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9. Brooder houses—stock shelters—feed racks—stock gates.
10. Garden seats—fences—arched gateways, swings and benches.
11. A suggestion for making new homes from old houses, at little cost.
12. Complete authoritative list of addresses from which you can get detailed plans for every type of farm building.

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NESHAMINY GARDENS

By R. P. Kester

AS I write this, September 20th, we are getting a little taste of the coastal hurricane which has played such havoc the last few days from Porto Rico northward. Although we are sixty miles from the Atlantic ocean, a bad storm along the coast is felt here to some extent. Such a storm is never felt farther inland. The wind whips with greater force, breaking limbs and twigs from trees and driving rain into otherwise water-tight places. Corn goes down before it and ripe fruit is blown from trees. However, when we read of the hundreds of thousands made homeless, and the millions of dollars worth of property destroyed the last few days, we are glad that we are having only an inland Nor'easter.



But when I awoke this morning and heard it blowing I felt glad that most all our peaches had been harvested. We gathered nearly all the Fox and Iron Mountains day before yesterday. They were so ripe that they dropped into the hand at a touch. I never before saw fruit ripen so quickly. Three weeks ago both these varieties were green and hard, and were not one-third full grown. But in that time they came to maturity in size, color and texture. The J. H. Hale, what we had of them, were picked and sold with the last of the Elbertas. Only close inspection will show a difference in these varieties. The J. H. Hale is a slightly better peach in flavor and is a little more streaked, but otherwise there seems to be little difference.

Questions, direct and indirect, continue to come concerning our success in raising chicks this year. My statement last year that we raised ninety-seven per cent was accepted in some quarters with a slight raising of the eyebrows. Others said in effect, "Well, maybe you did, but you can't do it again." It may be that those who are inquisitive now are potential I-told-you-so's. We did do it again. But I should not say "we," because Albert gave them the attention which resulted in the unusual success, as was the case last year. To put it in one sentence: Of the five hundred chicks hatched May 1st, brooded under one coal stove brooder in a new clean house, over ninety-seven per cent were raised to broiler stage, the sexes being about equal.

But success in raising chicks as with everything else is not a matter of luck. How often we hear people say, "I had poor luck this year with chicks," or, "I was lucky with my flocks this season." We should remember that we have passed out of the era of "luck" and sign farming into an age of science. Every effect is traceable to a cause, and when we fail it is because we do not know the right thing to do or, knowing, fail to do it. But it must be kept in mind that not all is known about agricultural science yet. There are many things to be learned before one can move with assurance that success will follow. But farmers are beginning to understand that the scientists and experimenters

are performing a real service. Some day all will realize the debt that agriculture owes to the experiment stations.

In the case of chickens, science discovered how to produce healthy, vigorous flocks and how to keep them healthy. That is the basic requirement for success. We bought our chicks from boys who studied the science of raising healthy, productive flocks at State College. Then Albert studied and followed the instructions of scientists who had learned how to feed and care for baby chicks. The commercial feed used was one of the brands prepared according to the latest scientific findings. They were not allowed on the ground until well grown. During the second week in July the cockerels were sold, bringing a price about thirty per cent higher than last year. Some of the pullets are beginning to lay.

Another question which still brings a good many inquiries is concerning our garden tractor. The summer's use has proven its worth. The very wet season and the consequent necessity of doing a lot of cultivating in comparatively few days made it expedient to keep a horse this summer. The tractor was sold, however, a few days ago. We feel that in a normal season with a normal growth of weeds that garden cultivators will do all the work of that kind on our thirty-acre place, and it is possible that we shall add one more next year. The one we have has plenty of power for anything we put to it.

In two or three days we shall enter the fall season. Probably the hatching wind and beating rain is the harbinger of autumn. Anyway, I heard a man say this morning that this was the regular equinoxial storm. The notion persists, in spite of the weather services, to the contrary, that the spring and fall equinoxes bring stormy periods. Whatever the facts we always have followed one of the most pleasant seasons of the year. Crisp mornings, a clear atmosphere, falling leaves, and the melancholy cadences that fill the air make one feel that life is well worth living, especially if his lot is cast in the country. I expect these things to overcome in me the habits of fourteen years commuting to the city.

Taxes Bring Service

HARD roads and automobiles have dissipated the farm isolation and increased its tax burden. Yet, is not the farmer apt to take too much for granted when he complains of this tax? Do we really, in our daily activities, take time to consider the benefits and worth of our extremely modern living conditions? And are we thankful for their existence and do we really pay too much for these benefits when their service is considered? This morning a neighbor's house roof caught fire from a burning chimney. Forty years ago this aged and feeble man would have had a pile of ashes on the location of the home of his age. Today he telephoned the alarm to Central. In ten minutes fifty persons were there, the fire was out, the neighbor sat in the shade, and dozens of automobiles were arriving. Modern living conditions may come high and do come high when we ponder over the tax receipts. But there's that benefit of service that certainly is worth while.

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OLD WALNUT

THE Department of Forestry at Harrisburg announces a demand for old walnut stumps. They are used for veneer, and the older and more gnarled the stump the better the veneer. Some farmers in this territory may find a little money rotting away in the field. Those interested should write to the Department of Forestry about it—not to us.

A DAIRY DEVELOPMENT

FOR the second time the National Dairy Exposition is held at Memphis, Oct. 13-20. The South gave it a warm reception last year and promises a still warmer one this year. For over fifty special trains will carry visitors to the show, which is to be "bigger and better." The list of livestock entries includes 335 Jerseys, 231 Holsteins, 167 Guernseys, 90 Ayrshires and over 200 club calves. Another exhibit worth mentioning is over 300 county agents, coming from two dozen states, and a host of boys and girls. The South is showing great interest in the dairy industry and some day will cut a much more important figure in it than in the past.

AMENDMENT NO. 2

ONE reason why Constitutional Amendment No. 2 should be approved by the voters of Pennsylvania next month is that it will give their State College a definite fund for development during the next ten years. That institution cannot develop properly by hitching along from one legislature to another, without any appropriation for buildings for some years and then with an insufficient appropriation. That plan is really the extravagant one, for experience shows that it denies the people the service they are demanding by forbidding the institution to plan for it. A definite fund, allowing for a definite program of development and service, is the cheapest way as well as the best way. If the state has surplus funds, and we are told that it will have, there is nothing to prevent their use for the redemption of the bonds and the saving of interest charges. Even if the bond issue is never marketed, but is at once taken up by the State Treasury, it should be pro-

vided for the sake of regular and orderly development—which is impossible with the uncertainty of biennial appropriations.

AN OLD PROBLEM

BREEDING for sex in the production of domestic animals has been a problem for centuries. The immense commercial advantage of ability to determine sex in advance has led many men to study it. Some of them have thought and said that they had found the key to this mystery, but in a few years they and their systems of breeding were heard of no more. We had about concluded that pre-determination of sex is one secret wisely withheld from man, but here comes a New Jersey poultry breeder who declares that he can produce pullets in every case, so has no need to bother with cockerels. His method is to use the X-ray on the egg. We are among the doubters and will continue in that company until our experiment stations test his claim about sex, also about X-rayed eggs producing chicks immune to all disease. We don't believe that anybody or anything can produce chicks that won't catch some disease.

THE COW'S DAY

BY careful observation the New Hampshire Experiment Station has found out "how the cow spends her day." We need not go into details, but evidently she spends it as a candidate does during the campaign, largely in moving her jaws. For the average cow moves her jaws 41,000 times a day. Something depends, of course, on how much she has to chew and the nature of it; but since she has nothing else to do, and has all the time there is, a few thousand revolutions more or less can hardly be considered of commercial importance. All physiological studies of the cow are interesting if not important, but why stop at physiology? Why not go on and study the psychology of the cow, for nobody has ever explained why she does some things when nobody is expecting her to do them. A study in bovine psychology might teach us what to expect of a cow and when to expect it—which would be helpful.

AN EARLY SLUMP

LACK of confidence on the part of producers was one of the influences, if not the principal one, back of last week's bad break in the hog market. The condition of many of the hogs which composed a too liberal supply indicates fear of lower prices later on or fear of disease. There is no way to avoid lack of confidence in future markets, but there is a way to overcome the fear of loss by disease. It is simply to immunize the pigs and relieve the owner of the necessity of shipping whenever disease appears in the vicinity. A year or two without disease leads many hog-raisers to neglect this method of protection, especially if cash is not at hand; but it usually pays best to protect the pigs and become independent in subsequent disposition of them. The "fall slump" has come early this year, but every pig marketed now will not be a hog to swell the supply of meats and lard later on.

WITHOUT GOVERNMENT AID

LAST week the Grain Dealers' National Association adopted a resolution in favor of cooperative marketing without direct government aid, saying that this system of marketing should have free opportunity to demonstrate its efficiency. That is good common sense and it is the view generally held by the real friends of cooperation, who are not

asking for special privileges of any kind. They realize that to become strong and effective cooperative organizations must be free from the trammels of government aid, which always involves more or less government supervision or direction. Cooperative organizations must become efficient in the only way open to any business enterprise, by their own efforts and through their own experience. Our government has already gone about as far as it should go in the encouragement and aid of cooperation. It has established a special bureau for the information and instruction of cooperatives. It has provided a system of public warehouses useful to marketing organizations. It has created ample credit facilities for all organizations worthy of credit. And it has even exempted cooperators from the provisions of anti-trust laws, an unnecessary favor if not an unconstitutional one. If cooperation in any form cannot succeed under the favorable conditions so provided, and under the general favor of public sentiment, it is not the system for which American farmers are looking or on which they can depend. But cooperation does succeed without direct government aid or subsidy when it is properly founded and conducted. And it will succeed better if the government keeps out of it than if the government meddles in it and muddles it.

NECESSARY ORGANIZATION

FOR several years there has been a tendency toward the combination, consolidation or merger of companies which handle milk and other dairy products. No matter what we may call this movement, or whether we consider it good or bad for the several interests concerned, it is a fact. If it continues, and it is likely to continue, we shall have a few great companies instead of many small ones, or many of both kinds, engaged in the purchase, processing and distribution of one of our most important farm products. There is nothing alarming in such a movement if it is based on the firm foundation of economy in operation; for it is true that the benefits of all economies in any line of business are ultimately shared by all concerned in that business. It is equally true, however, that each interest must attend to its own business of getting its share.

This brings us to the one outstanding fact which producers should keep constantly before them. Centralization on one side of the milk industry must be balanced by centralization on the other. Centralized buying must be balanced by centralized selling. Otherwise the seller will get the worst of it, not because the buyers are dishonest or greedy but because they are human—because "when self the wavering balance shakes 'tis rarely right adjusted." It is important in this great industry that things be "right adjusted."

There is only one way by which the balance between producing and distributing interests, each dependent on the other, can be maintained. That is by as effective organization, by as much business ability, on one side as on the other. All of which means that the greater the centralization of distributors the stronger the organizations of producers must become if they are to prosper. There is no other way, there is not likely to be any other way. Let us recognize in time this tendency of modern business and the producer's relation to it. Let us understand the necessity for organizations broad enough to determine what is equitable and strong enough to maintain it. However important such organizations have been in the past all signs indicate that they will be even more important in the future.

For Farm Relief—Louder Horns or Better Brakes?

Legislation That Helps Some Farmers Is Certain To Hurt Others

By Newton S. Gottshall

RECENTLY the writer witnessed an automobile accident that was entirely due to the fact that one driver was driving with his horn and not with his brakes. As far as he could be seen and heard, before he came to his grief, he passed pedestrians, horse-drawn vehicles, pleasure cars, trucks and crossroads at a terrific speed, sounding his horn to warn others of his approach. Things went lovely for a time, but suddenly he found himself in a precarious position. The motor in the car ahead of him "went dead" and an approaching car blocked his passage to the left; the result was two wrecked cars, one almost beyond repair and two injured drivers.

This accident reminded me a great deal of our much talked of farm relief. I have carefully studied the types of relief demanded in the different sections of the country and have concluded that there seems to be a question as to whether we know just what kind of relief we want. In approximately four thousand interviews with farmers during the past two years the question of farm relief has naturally come up many times. Invariably, after some discussion, the fact is brought out that different types of farming require different kinds of relief. Those who have tried credit admit that there is something besides more liberal loans needed to stabilize agriculture.

Eastern Milk versus Western

The eastern dairyman wants a protected milk market. He feels that the western dairyman should not be permitted to market his dairy products, especially fluid milk, on the eastern market because it pays a higher price. The western dairyman sees no reason why they should not be permitted to sell on the eastern market, thereby getting greater returns which will help to meet the increased cost of production due to increased land values, higher taxes and higher labor costs.

When grain prices soar and show the mid-western grain farmers a profit over the cost of production, the eastern dairy and livestock men become dissatisfied because of the influence this has on grain feed prices, which determine in a measure their cost of production. How many different kinds of legislation would be needed to take care of dairymen, poultrymen, stockmen, fruit growers, vegetable gardeners, grain farmers and so on, if legislation can help? The two outstanding demands in the East are protected markets and more credit. Let us assume that the government would grant more liberal loans on farms, livestock and equipment, what would be the result? Would it not increase the overhead in our operations? Too much overhead is the barrier which prevents many a business from moving in the right direction. On second thought, many who have believed this to be the solution to the farmer's problem are now frowning on it.

There Is a Limit to Market Demand

Let us assume that federal legislation would make protected markets possible, what would be the result? The dairymen would want the people in that particular marketing area to consume more milk to further stimulate demand; the poultrymen would come along with campaigns telling the consumers to spend more of that food dollar for eggs; the fruit growers would no doubt keep before the public the story of "An Apple a Day, etc.", the stockmen through organized effort would teach the housewife how to secure more food for her money by buying choice or cheap cuts of beef or pork; the sheepmen would prove that in countries where much mutton is eaten cancer is practically unknown, and so on, all the other farm products would be pushed to the forefront in order to create a greater demand which naturally means a better market.

I do not mean to intimate that we are not benefited by advertising our farm products. This is being done and has helped a great deal, but the great trouble in this farming game is that too many drivers are not using their brakes. The average farmer is like the average automobile driver; when the horn ceases to function we "pull up" at the next garage and have it repaired, but we drive with poor brakes for days and sometimes weeks only to learn

that the much-trusted horn will not help very much when we get into a danger zone.

Let us stop long enough to analyze the situation. Who is responsible for the present conditions, our public officials or we ourselves? What happens when the price of milk advances in certain markets? Many producers, supplying that market, buy more cows, especially in sections where dairymen buy rather than raise most of their cows. It is only natural that they should add to their herds, for we are all human, but in reality such practice is the abuse of a good market. Just because statistics show that the average person in the United States consumes more than a barrel of milk annually some dairymen seem to think that there is no limit to the demand.

The Foundation for a Good Herd



Mr. W. W. Lushen of Allegheny county, Pennsylvania, with Leona Blackwell Pontiac, the foundation cow of his Holstein herd. This cow produced 2.05 1/2 pounds of milk and 57.44 pounds of butterfat in thirty days.

Twelve years ago the potato growers in an eastern section decided not to cut prices as heretofore but to sell "on the market" whatever it might be. Things went along in good style for some time. When the supply exceeded the demand they would withhold deliveries until more were wanted. However, one day one of them "broke faith". He found no demand, so cut the price 20c a bushel, thereby creating a market. Of course he sold all he had on his load that day, but the result was disastrous. He sold his potatoes at less than he could afford, the consumer got a bargain and for some time thereafter tried to buy at less than market price. Not only did this particular potato grower suffer but all others selling on this same market as well. If this fellow had only used his brakes instead of his horn all would have been better off. It had not been the object of these potato growers to "corner the market," but to maintain the proper balance between supply and demand. This always has been and still is the soundest form of farm relief. The manufacturer curtails production rather than sell at a loss. It is true he is in a better position to control his output than the farmer because there are numerous producers of farm products not cooperating.

The Problem Challenges All of Us

The reason that many of us have been disappointed at the failure of Congress to give us farm relief is because we have allowed ourselves to picture it as something so easy that our government could give it to us. It is not easy, but just the opposite, and because it is difficult it should be a challenge to the farmers of this country to get it.

Our modern farming equipment has made it comparatively easy for one man to farm a large acreage. It has also increased our investment, but not always sufficiently increased production per acre to make it profitable. Why cultivate a great acreage when it must be done at a loss?

The American farmer has made wonderful progress in the past decade, production per animal and acre, undreamed of a quarter of a century ago, are now attained with comparative ease. We have traveled so fast, the very speed seemed to dazzle us so that

we never noticed the danger signals. Now we find ourselves in an uncomfortable position. We have sounded our horn, so did the other fellow, now let us not expect the impossible, but use our brakes more freely and things will return to normal.

Had Wrong Home Training

By C. B. ALLMAN

I NOTICED in the September 1st issue that our good friend Mr. Zinn again attacks the schools, saying that our public schools today are teaching extravagance rather than thrift. I wish to inform him that he is wrong in this statement.

In 1913 M. P. Shawkey, State Superintendent of Schools of West Virginia, issued a bulletin on the teaching of thrift, a copy of which I have preserved. This awakened the idea and for the past 15 years the thrift idea has grown in the schools by leaps and bounds. Today that is one of the main points emphasized in our schools, the saving of money, books, pencils, clothing, furniture, etc.

Receive Wrong Training at Home

The problem of extravagance is not with the schools but with the homes. Can the schools hope to take out of the flesh what has been instilled in the blood and bone? The people of today who are wasting their money as they go along and buying automobiles instead of silos have been taught that by their parents or the schools of the past generation and not by the schools of the present generation.

Our public schools of today are teaching thrift in the most effective way. They are getting results too, which will show up in the next generation, regardless of what they have been taught in the past. I do not mean to say that all pupils will respond to the present day teaching of thrift, but a goodly number will. More than there were in the past generations.

After all the home, the first institution in the land, instills in the boy or the girl things that the school cannot change. It isn't fair to blame the school, the third institution of the land, for things that were fixed so firm in the pupil before the school became responsible. Why not let the home, the first institution, and the church, the second institution, be responsible, because they get the pupils before the school has a chance to train the pupil?

It requires better training now and will in the future to earn a living than it did in the past, because the past generations have wasted the land and other natural resources. There are more people to feed, clothe and shelter, more competition for a job and the use of machinery, which requires training. Our schools are now training people in the most efficient manner to meet the problems of life for the future.

Grading and Marketing Tour

A FARM marketing tour through six counties of western Pennsylvania is to be held during the second week of October under the sponsorship of the Pittsburgh Chamber of Commerce. Agricultural extension specialists, county agents and local Chambers of Commerce in the counties to be visited are cooperating. The object of the tour is to bring producers and consumers of farm products into a better understanding of each other's point of view, and to improve marketing methods in this region. Particular attention will be paid to the grading of farm products.

The following State College extension specialists will have charge of those parts of the tour program which deal with specific farm products: Apples, H. J. U. Ruef; potatoes, Nicholas Schmitz; eggs, H. J. U. Ruef; H. N. Reist, agricultural economics extension specialist, also will accompany the tour. Stops have been scheduled in Allegheny, Beaver, Butler, Mercer, Westmoreland and Washington counties.

Eastern Farm Comments

By MILES HORST

A COMMUNITY fair I always enjoy attending is that staged at Berrysburg by the farmers of the Lykens valley. Just to drive through this long narrow valley, running east from the Susquehanna river across northern Dauphin county, Pa., on a clear autumn day is a treat. It is peopled by thrifty farmers whose farms are well kept and whose homes always look tidy. They are good feeders, too, as their livestock well shows. Their fair staged for two days during the last week of September is the "show window" of the community, where those coming from the outside can see what the community has to offer.

The display this year, while not larger than in former years, showed an advancement in the quality. There were tables filled with canned goods, rows of crates of apples, potatoes, and nuts. The corn exhibits showed up well for this time of the year. A fine Chester White futurity show was conducted. In the dairy cattle exhibit an innovation was introduced, one which other communities could follow with profit. Each member in the local cow-testing association was asked to exhibit his best cow and his poorest cow. Six members responded. There were the cows with their records. A striking exhibit was the two cows, Holsteins, brought by Dan Roumager. For one he had paid \$192, for the other \$192. One was giving 60 pounds of milk a day, the other 23 pounds. Dan told the crowd how the cow-testing association was revealing his good and his poor cows.

At this fair the boys and girls in the vocational school located at Berrysburg play a leading part. Their teacher, George Reiser, is the director of the fair, and of course he gives the younger folks the opportunity of leading off. He is developing future leaders for the community.

SATURDAY, September 29, the Agricultural Committee of the American Bankers' Association honored southeastern Pennsylvania with a visit to see at first hand the type of agriculture followed in this section and many were the praises they offered for the thriftiness and the thoroughness of the farmers of this section. They made four farm stops, one in Lebanon county to see the baby beehives fed by local boys and girls, another at Christ Snyder's place near Ephrata, another at Amos Eberly's farm at New Holland, and the last at Louis Downing's farm in Chester county. The finest expression from the group of what they saw and sensed as they visited these farms and the area in general came from Dean Russell of the University of Wisconsin as he addressed the group at a luncheon given by the Ephrata National Bank. He said that no material is holier than the soil and no responsibility greater than the maintaining of its fertility. In this fundamental, the farmers of southeastern Pennsylvania undoubtedly came nearer to the ideal than any other large group of farmers in the United States.

MRS. I. V. OTTO of Carlisle, Pa., had the best laying flock of hens in the state during the month of August. Her flock of 145 White Leghorns averaged 218 eggs per hen for the thirty-one days, a very high average for this time of the year. A neighbor of hers, J. H. Polar of Mechanicsburg, did almost as well. His flock of 172 White Leghorns averaged 231 eggs per hen during the period, rating this flock as the second best in the state during the month.

A GROUP of Columbia county, Pa., potato growers, about a hundred in number, have organized a cooperative potato growers' association for the purpose of marketing this year's crop collectively. Many of these growers entered the potato growing game for the first time this year. They have not yet established channels through which to market their crop and are turning to the cooperative for assistance. Experience plainly shows that a venture of this kind can succeed, but it also shows that unless the membership as a whole is willing to grade to a rigid standard of quality and stay by it the results may be disappointing.

THIS is a curious fact yet one which is found to exist in many of our Pennsylvania communities. Our markets are bringing in produce from distant points when local producers are growing the same stuff right at home and yet are not finding a good market for it. A case of this kind came to public attention recently. A survey made of the source of

the produce used by the summer hotels in Monroe county, Pa., showed that more than \$100,000 worth of produce was shipped to them from outside markets, produce which might have been secured at home. Frequently the trouble can be traced to the local farmers themselves. They may lack salesmanship, or fail to deliver the product as wanted and when wanted.

ONE of the largest land purchases for state forest purposes during the current year is that of a tract belonging to the estate of S. N. Williams, which is located in Clinton county. The state of Pennsylvania paid \$55,837.67 for 13,929 acres, or an average cost per acre of \$4. The tract is covered with a ten-year growth of white oak, birch, beech and maple, interspersed with white pine and hemlock.

THE Pennsylvania Department of Agriculture has made an innovation in its plan for certifying seed potatoes. Instead of restricting fields eligible for certification to those counties having a high altitude, the Department now proposes to certify fields which meet its requirements in any part of the state. This change was made because experience has shown that when growers obtained the best of northern grown seed and planted it in southern counties the first crop grown from such seed showed a low disease count, and when in time it was used for seed the results were at least equal to much of the certified seed sold in the state.

In changing its plan the Department has not lowered its standards of certification, in fact it has raised them. But by extending the area, undoubtedly the amount of inspected and approved seed in the state will be increased. Eventually if this plan is carried out, we will recognize two grades of seed in this state. There will be the certified seed as outlined above. Then there will be a higher grade of seed which may become known as foundation seed. It is this which most growers of seed will draw upon for their seed. This foundation stock is stock of exceptionally high quality, such as is now grown on a few farms in Potter and Cambria counties, and in sections of Michigan, New York and Maine.

THE use of labor-saving machinery does more than cut costs of production on our farms. It materially relieves the extra burden placed upon our women folks who are called upon to feed groups of hungry men at such times as threshing and silo filling, a factor so often left out of our calculations. Our experience in filling silos this fall emphasizes this. With the use of a corn harvester six men filled my two silos, holding about two hundred tons, in two and one-half days. In former years it kept twelve to fourteen men busy to fill them in three and a half days. This year there were but five men to prepare for six men as compared to seven men for fourteen men in former years. Needless to say the lighter load upon the household this year was much appreciated by the woman who must face these extra loads, usually alone, for help for her is almost out of the question in our community.

I SPENT a very profitable afternoon last week on the farms of Aaron and George Blattner, located along the Potshop road running north from Norristown, Pa. The farms of these two brothers join one another. They are both about forty acres in area and each is farmed intensively. Aaron has a dairy of some twenty cows. His milk is retailed in Norristown. George has fewer cows and makes a high quality butter. Both feed hogs and both have poultry flocks, that of George's running about four hundred hens. Both men attend the farmers' market at Norristown each week, where they dispose of most of the products they produce on the farms. They have made a specialty of meat products, killing several hogs each week. Sausage and scrapple are their chief items, each selling about one thousand pounds of these two products every week.

Interesting as all this was to me, I was more interested in how each family could do all this work with so little help, for but one extra hand is employed on each farm and there are no children at home to offer much assistance. The solution of the problem lies in the extensive use they are making of machinery driven by electricity. A two-horsepower motor runs the meat grinding and mixing machinery. A one-horsepower motor milks the cows, a seven and one-half-horsepower motor runs the feed grinders, which are supplied with large hoppers, so as

to require the least labor. A one-horsepower motor pumps the water to the house, the barn and the butcher shop. Each farm has a large refrigerator. That of Aaron's is one needing ice, that of George's is electric. This makes it possible to kill the hogs when convenient, for the meat can easily be held until market day. The wives of both brothers spend much time in helping their husbands to prepare the products for market. They can do this because their households are so arranged as to cut household work to the minimum. They have electric irons, washers and sweepers. In each house is an electric range and an electric refrigerator.

Naturally after seeing all this equipment, I inquired what the electric current needed to run it cost a month. Aaron told me that his monthly electric bill ran from \$20 to \$24. George's bill ran around \$30 per month, the greater cost being largely due to his use of a large electric refrigerator in his butcher shop. The next question asked was, does it pay to buy this equipment and pay for the current? Right off Aaron answered, "If we didn't have it we would need at least another man and occasionally a woman. Figure what these would cost us a year, that is if we could find them. Besides it makes our load lighter." To this his wife added, the electric range makes it possible for her to sleep a half hour longer in the morning. Aaron again went on to say that what I saw there, the farm and all, was paid for and the money to pay for it came right out of this small farm. If it didn't pay to be equipped as he was, or to use the current as he does, he wouldn't go on doing so. There was no argument to that fact.

I came away from these farms convinced of this fact, that while it cost these men good money to equip themselves to use electricity and the current itself apparently ran high in cost, yet it was paying well for itself in reducing the labor load on the farm and at the same time made the labor expended more profitable.

New Jersey Notes

NEW JERSEY'S Marketing Exhibit Train wound up the season at the Trenton, Interstate Fair the last week in September, making one of the feature agricultural attractions on the fair grounds. The train has been visited daily by hundreds of farmers in the central and southern part of the state and drew a large and continuous crowd during fair week. A full corps of department specialists was in attendance during the week, featuring particularly grading and packing methods for fruit, trucking crops and poultry products. The train, during the last two and a half months, has visited twenty-five farming districts in six counties, and entertained 10,500 people, which is nearly 4,000 more than in 1927.

THE New Jersey Federation of County Boards of Agriculture is adopting a new plan this year in collection of membership dues for 1929. Beginning October 1st, it is billing all present members through its county offices, urging them to forward the membership dues by mail. Such collections enable the organization to save approximately \$1 out of each member's dues, as this, during the past few years, has been the approximate cost of collection. If the plan is followed out the 6,000 members of the Farm Bureau in New Jersey will have saved about \$6,000 for additional working capital. Every member in the state is urged to forward his 1929 dues to his county office. This plan is followed with considerable success by some of the western State Farm Bureaus and the State Office at Trenton is looking forward to favorable reaction upon the plan.

THE New Jersey State Bureau of Markets reports produce sold at farmers' markets in New Jersey to an amount of slightly under a half million dollars during the last year. The opening of another wholesale auction market at Trenton indicates increasing popularity of this method of selling, and like the other farmers' markets the new Trenton auction is meeting with great success. Atlantic City this summer opened an evening market, which during the latter part of the season added considerably to the total volume of business transacted. During one 24-hour period, approximately \$10,000 worth of business was transacted. During the month of July, figures just recently available show, the morning market handled 1,827 loads consisting of 42,639 bushels of produce, 9,753 dozen of eggs, and 7,252 pounds of poultry, which sold for \$72,619. During the same period the evening market handled 813 loads, consisting of 35,630 bushels of produce, 1,351 dozen eggs and 458 pounds of poultry, which sold for \$67,030.



You get more than other farmers

WHEN your hogs are sold and the money is in your hands, your worries are ended. But the problem of marketing those hogs is really only just begun. They must still be killed, scalded, scraped, cleaned, examined by government inspectors; the viscera must be separated for by-products; the carcass must be chilled. After this the processing commences—the cutting, curing, rendering of lard, cooking of parts for canning. Then comes the extraordinarily intricate business of distributing to market outlets throughout this country and many other parts of the world.

Your return for raising hogs is from 55 to 60 per cent of the price finally paid by the consumer. (The packer gets 12 to 15 per cent to cover his entire costs.) Compare your return with that of other farmers! The California orange grower receives about 41 per cent of the retail price. The potato farmer gets 38 per cent. And the western apple grower gets less than 25 per cent for boxed fruit.

Your returns are comparatively large only because of the great efficiency of the packing-house organizations in finding constant outlets for the processed meat.

Armour and Company employs an army of 60,000 constantly engaged in making your products suitable for consumption, and in finding the most profitable markets for them.

Edson White
President
ARMOUR AND COMPANY
U.S.A.

AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.



You'll Just Love Dotty Dimple

The New Flirty Eyed Suck-a-Thumb Doll
GIRLS! Dotty Dimple is the Newest, Sweetest Doll in Aunt Molly's doll family. She has soft rubber arms and hands. She sleeps and cries and holds a nursing bottle in her hand and you can put her to sleep Sucking Her Thumb. Her head is unbreakable and she is over a foot tall and dressed just like a real baby with white kid booties and wears a flannel diaper, too.

Write Me Today—Sure

Dotty Dimple will not cost you a penny—she is given away in return for just a little favor. But HURRY. To the first girl in your neighborhood to have the lifelike flirty blue-eyed, Suck-a-Thumb Doll. Write this very minute. Just say "Please tell me how I can have Dotty Dimple without a cent of cost to me."

AUNT MOLLY, Dept. 2847, Spencer, Indiana

Crops and Soil Improvement

By W. D. ZINN

"WILL you tell me the name of these two grasses and what I can do to get rid of them without tearing up the lawn? They are crowding out the other grass. This yard was all spaded up six years ago this last spring and sowed with good timothy seed. It does not seem to run into bluegrass much. I filled in some parts of the yard last spring and sowed Kentucky bluegrass seed. It seems to be nice and clean, but where this wild grass is where I have always had the best grass till this year. I pulled out this kind of



grass on half of the yard, but would hate to try it on the other half, it is so thick. It has been mowed well twice in six years." H. G. E.

The samples of grass enclosed are just like grasses growing in our lawn and they are fall grasses for which I know no name. They come on in the fall, but the next spring the lawn grasses come just the same. Evidently the seed is in the ground, else this grass would grow where the fill was made as well as elsewhere. The lawn, like the alfalfa field, should be fertilized with commercial fertilizer and not with stable manure. It carries too many weed seeds on the ground.

The School Term

J. S. T. W. Va.—"I read with interest your article concerning our schools and am in sympathy with your views. Our school system is in a great many ways a sad mistake. The child is pushed through the grades where only a smattering of the essentials and very life of an education are given. As soon as the pupil can pass the diploma test he is passed on to high school. Now here is a great injustice, as not all parents are able to bear the expense of sending their children to a high school. In our time we could keep right on in the rural school and make a No. 1 certificate, and some of these old fellows can at this late day put it over on any of their so-called high school graduates. Our schools are being civilized, and what we need is for them to be countrified.

"A great drawback is that we are deficient in books. Of books we have a plenty, but real books we lost when they decided we had to have something modern and disposed of Ray's arithmetic, McGuffey's readers and spellers. Several years ago I served as member of the board of education of my district. At that time it was something like \$25,000; at the present time I am a member of the same board and it takes \$125,000 to run the schools in the same district. It is appalling to think where we are drifting. Can we keep it up? The trouble as I see it is that a great move is on and has been for several years to centralize education, first at Charleston, then at Washington. Charleston has about got their part of it done. Next the cry will be to come under the wing of a department at Washington. Are we game for it?"

A reader said to the writer yesterday: "I enjoy reading your articles because they stir up discussion, but I do not always agree with you." I would think that something was wrong with my readers if all of them agreed with what I said. Our correspondent seems to agree with what I have said about a six-month school for the rural districts. I hope my readers will understand what I mean. What I am in-

sisting on is that we live under a democratic form of government and that we should have the right to say whether we shall have a six or an eight-month term of school. I believe in the majority ruling. If a vote is had on this question and the people say they want an eight-month term I have not a word to say.

Full Time and a Pension

The teachers of Harrison county, W. Va., declared by a resolution that they should be paid for twelve months' work in a year and that after twenty years' service they should be placed on the pension roll. That would be very fine—for the teachers. In conversation with one of the old and best teachers of the county he said he had not voted for the resolution nor was he in favor of it. "I am getting \$175 per month," he said, "and that is too much compared with what the farmers are making on their farms." Here is an honest man. If the teachers are put on the pension list who will pay the pension? The already over-burdened taxpayer will have it to pay. In Indiana one per cent of the salary of the teacher is withheld and placed in a fund for giving a pension to teachers after they have taught so long. No one could object to this plan. Many teachers would profit if 50 per cent of their salary was held back to provide a pension.

What Education Is Necessary

G. P.—"I would appreciate your opinion on some things concerning my son's education. We have a farm of one hundred acres, fully equipped for farm work. My son has been considering going to school. Do you think it necessary for one to take the four-year course in agriculture to do practical farm work, or would the shorter winter course give practically the same knowledge? Do you think it would pay, financially, to spend four years' time in college and then come back and do practical farm work?"

In the first place I would like to see every farm boy get an even start in the race of life with the other fellow. We often see a father educate one boy to be a preacher, one to be a doctor, and the other to be a lawyer, and just because the fourth boy chooses to be a farmer the father says that he does not need to be educated, and when these boys go out in life the public wonders why the farmer boy is not as smart as the other three boys. He did not get an even start. Every boy should have at least two ambitions. First to accumulate enough of this world's goods to enable him and his family to live comfortably and to educate the children that God may give him, but if he stops here he has come far short of filling his mission in life. His second ambition should be to so prepare himself for life that he can render the greatest possible service.

Went to College at Forty

Every boy should have a common school education, and if possible a high school education. If he is to be a farmer he should know more about his profession than these schools will teach him unless the high school gives a pretty thorough course in agriculture. It is often desirable that a boy should have a four-year course in agriculture. I do not believe it absolutely necessary that he should have it, but I do believe he should have the two-year course to which our correspondent refers. When the writer was forty years old and had a four-thousand-dollar mortgage on his farm he left the farm in the care of a hired man and the mortgage in the hands of the creditor and took a two-year course in the University. Neigh-

bors have come to me in recent years and apologized for having said that my farm would be sold to pay my debts. I am sure that I never did a wiser thing and therefore I do not hesitate to advise others to go and do likewise. Our correspondent's son may make just as much money if he saves the money he would spend taking this two-year course, and thus he would achieve his first ambition, but I am sure that he will be able to render greater service because of the training he will receive in this course. I do not think it would be advisable or wise for every father to give his boys a four-year course in agriculture. It should, however, be the ambition of every father to prepare his children to render the greatest possible service to humanity.

Friendly Talks

By Edgar L. Vincent

ONE of our finest sugar maples went down in a hard wind storm not long ago. It seemed a pity to lose such a beautiful tree; but as we looked at the fallen monarch of the forest we could not help noticing what a small root system it had. Its roots ran only a little way out from the trunk. Without doubt our good old maple tree had a slender hold on the earth. Other trees of the same kind often send their roots far out in every direction, and this helps to hold them safe in the time of storm, for it is the roots that anchor them to the soil.

You and I know men who go down very much as did our maple tree. For a time they grow strong and beautiful. They are helpful in society. Then all at once they fall before the wind of some temptation, and the places which once knew them know them no more.

From these it is refreshing to turn to men who stand up bravely and well through every storm that comes upon them. Indeed, they seem to gather strength from the hard things that come to them. If we ask why this is, we find that they are grounded deep in the principles of right. They began early to fasten themselves firm to the things which are good, and true and lovely and of good report. And this firm grip carries them through the tempest which comes to us all.

A feeble hold on right means an early downfall.

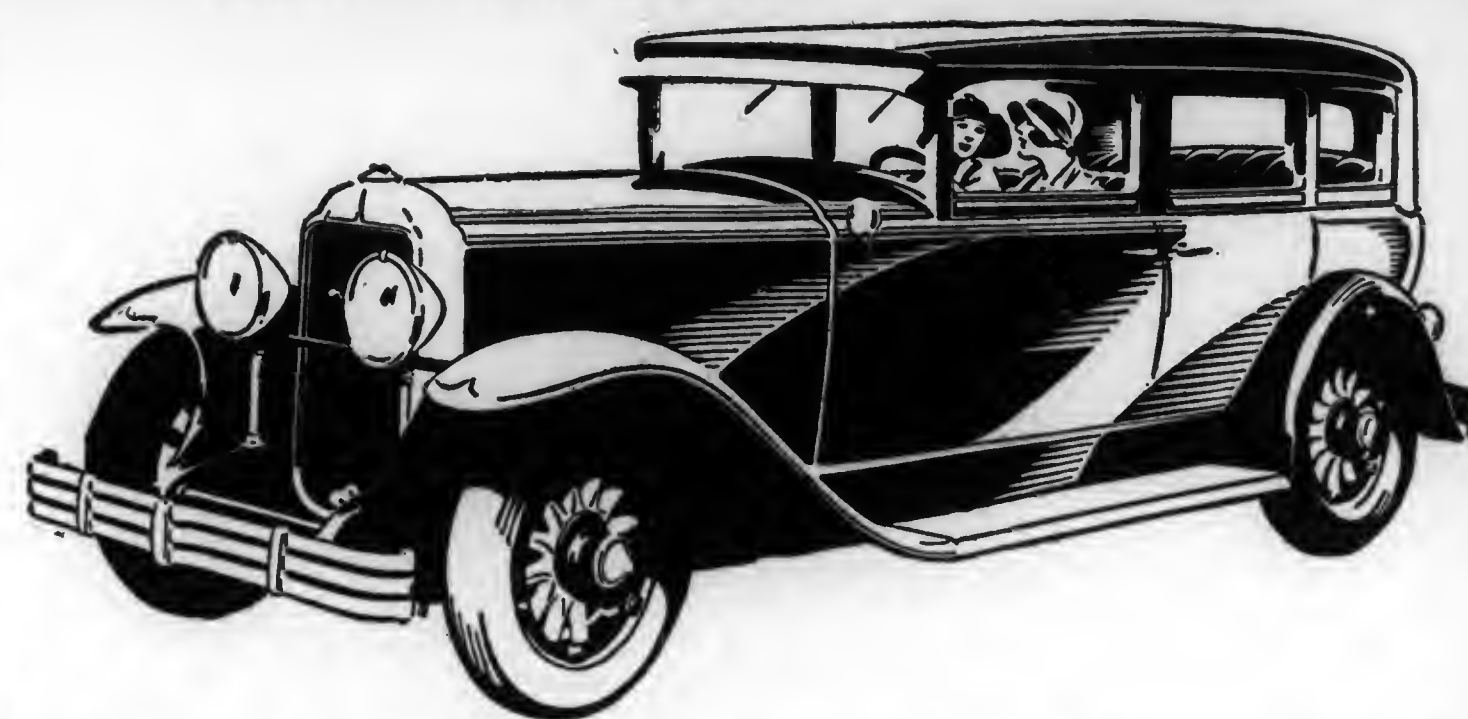
We dread to see our trees fall before the blasts of nature. Every one of them means a loss. How much more serious when a man loses his grasp on high living and is brought low by evil! No words can picture such a loss to society. A calamity like that cannot be measured by any known standard of value.

And unlike the tree, you and I can determine how far out our life-roots shall be. This makes living a most serious matter. Well for us all if we realize this and grip truth and righteousness with a hold that no tempest can break.

Thinks It Hopeless

I SEE in the Pennsylvania Farmer an article on morning glories. From the description I would call them the small white sweet potato. I have them on my farm, haven't found any way to get rid of them, for they will grow if there is only an inch of root in the ground. If the field is fenced so the hogs can be turned in without being rang they will dig as long as they can find a root. But they will miss some of the roots and you will still have some left. The only sure way is to dig and leave them. For there will be wild sweet potatoes when Gabriel blows his horn.

A. W. VA. READER.



The New Buick is the New Style

Sweeping into the market only a few weeks ago, the Silver Anniversary Buick has already won country-wide recognition as the new style—the new mode—in motor cars!

Motorists have been quick to recognize that this wonderful new Buick with Masterpiece Bodies by Fisher is not only a supremely beautiful car but a thrilling turning-point in body-design. And recognizing this fact, men and women on every street . . . in every city and town . . . are eagerly acclaiming the new mode.

Here are dashing new lines, different from any heretofore known—longer, larger, more luxurious bodies, matchless in their

grace and symmetry—gorgeous new color harmonies—the richest of upholsterys and appointments—full-width rear seats providing plenty of room for three adult passengers—an ensemble of beauty and luxury that has never been equaled—

—and in addition, new and deeper radiator lines—new chrome-plated headlamps and cowl-lamps—new wheel and fender design—all combining to lend incomparable poise, fleetness and distinction!

The new Buick is the new style—a style that has won instant popularity—a style that is causing America to buy almost four times as many Buicks as any other fine car!

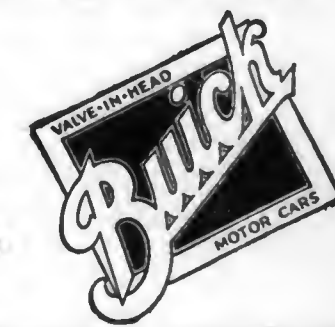
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THE CUTAWAY HARROW CO.
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LITTLE WONDER DITCHER
Direct from Factory to Farmer
Ditch a Mile a Day!
"The Little Wonder is a real labor and money-saving machine," writes August Martin, Hinsdale, Ill. Cuts a ditch from 10 to 18 inches wide and from 2 to 36 inches deep. Works in any soil. You can drive in a straight line or around a curve and it's a perfect grade all the way.
L. W. Sales Co.
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Paint made

Does your house need painting? If it does, get busy. You've got the rain, the wind, the sun, and the snow all in league against you. One or more of them, or all of them, are working on the job every day—and time is flying.

Get busy. Order some paint today—and there's another story. Don't just order paint—get the best paint obtainable—Felton-Sibley's. There's no better paint made and that's a known fact.

Stop in and talk over the paint proposition with your Felton-Sibley dealer next time you're going by.

Felton-Sibley dealers are selected because they know paint and paint problems. Get the benefit of their experience. Ask them to show you the new Felton-Sibley Color Guide. This contains large reproductions of 15 buildings just as they actually look when finished, and also a great many other helps on painting and home decoration. There's a dealer near you.

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Manufacturers of Paints, Varnishes and Lacquers Since 1863
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Buy the Best and Pay Less. Order Now and Save Money.
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BUY DIRECT FROM FACTORY SAVE 50% LOWEST PRICES IN 10 YEARS

Due to the demands, increased output, reduced manufacturing costs, low selling price on our direct-from-factory-to-farm plan.

GET YOUR SHARE OF MILLION DOLLAR SAVINGS

Thousands of farmers are getting their share of the savings by buying their engines, separators, spreaders, and other farm equipment directly from the factory. Write for our new booklet, "How to Get the Most Out of Your Farm Equipment." It contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment.

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THE GALLOWAY COMPANY
Dept. 187
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Send for free BOOKLET on NATCO CEMENT TILE SILOS

Write for our new booklet, "How to Get the Most Out of Your Farm Equipment." It contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment.

NATCO CEMENT TILE SILOS

Write for our new booklet, "How to Get the Most Out of Your Farm Equipment." It contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment. It also contains the names of the dealers who are getting the most out of their equipment.

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FREE WRITE TODAY for FREE POULTRY and DAIRY BOOKS

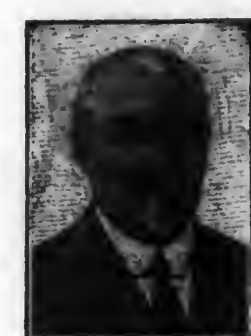
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Wood Tanks - Brooder Houses
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E. F. SCHLICHTER CO.
Special Price for You NOW
10 S. 18th St.
PHILA., PA.

Farm and Dairy Moisture Changes Requirements

By L. W. LIGHTY

A VERY excellent farmer visited me the other day and we "talked shop" for a little while. I call him an excellent farmer because he made a lot of money out of the soil and the soil is more productive than it was when he started. The man who can do that is generally worth listening to. He said,



"You writers are constantly telling us we must put lime on the land if we want to grow clover. This year I have an abundance of clover even where I have sowed no seed and applied no lime for a long while yet tests indicated that the soil was

acid. We had an abundance of moisture all summer and now I wonder if plenty of moisture in the soil answers the same purpose as lime. How do you explain it?"

There are a lot of things happening in the soil that no one ever explained and I have had the same experience as my friend. Of course the chemist will not say water in the soil takes the place of lime but we have a right to inquire why water brought the same results as an application of lime for us this season. But this is a very exceptional season. Next season may be one of those when the soil becomes very dry. While I am not able to answer my friend's question or explain my experience, I have learned in a half century experience that lime is a pretty good insurance in the fields. I have and am applying some twenty tons to my next year's grass seeding. Seasons of general failure always made me the most money. I think most producers will agree with me that to make good in a bad season requires special effort and favorable conditions for the crops we grow.

Sealing the Silo

"I BUILT a new silo this season and am filling it for the first time. I see advertised a device for sealing a silo when filled and I am wondering if it would pay me to purchase such a device."

I am unable to say what the device referred to might do but I tried plans and devices for years to save on the spoilage but found nothing equal to plain corn stalks with the ears snapped off for pig feed. This I ran on the top of the silo for the covering and at

once poured a barrel or two of water over it tramping it the while. As soon as it had warmed up well from the fermentation, possibly 36 to 48 hours after finishing the filling, I again wet it down thoroughly and tramped it well. When ready to feed it was surprising how small a heap of mould stuff had to be removed until the perfectly good silage came into view.

I used chaff, swale grass, sawdust and a device of laths and tar felt roofing paper to cover the top but invariably there was quite a bit of spoilage. Counting the extra labor of procuring other materials than corn stalks, I realized I was losing rather than gaining. I am somewhat emphatic in my advice to use the cut corn stalks for sealing the silo. It is the most economical plan and always practical.

I found that covering the surface of the silage when I could not feed it rapidly enough to remove two to three inches daily from the surface was entirely useless as it did not prevent spoilage. It actually moulded more rapidly under the cover than when left entirely uncovered. We do not seal the silo as we seal the fruit jar but the seal is material so solidly matted with mould that very little air can penetrate. Under this mat of mould the silage is preserved in perfect condition.

He Took the Wrong Train

"ON your recommendation I purchased a book, The Story of the Soil, by Cyril G. Hopkins, and I find it pretends to be a novel, but it is a poor excuse and I do not understand what you saw in it to recommend it."

My friend is mistaken as I never recommended the book he names, but I did say Doctor Hopkins' book Soil Fertility and Permanent Agriculture is well worth reading as it contains many matters of the first importance and is generally written in a lucid style.

Doctor Hopkins had a unique and unusual experience in reexamining some soil in his state of Illinois and his experience is worthy of study and consideration, but he was greatly elated with his success. Fearing the average man would not read his more romantic work on the soil he tried to land on throwing the matter in hand into the form of a romance; but, as our friend says, it is a rather poor excuse. In so far as my reading goes agricultural romances are generally a failure. There is plenty of poetry on the farm but precious little in actual farming. That is work.

Pennsylvania Cow Is Eastern Champion



Langwater Hayes Daisy, grand champion Guernsey cow at the Eastern States Exposition, is owned by B. D. Miller of Honesdale, Pennsylvania.

It All Depends ON WHAT'S IN THE HAY MOW

HAY on most dairy farms ranges in quality from timothy and wild grasses, at the bottom of the list, to second and third cutting alfalfa, at the top. Long experience has proven the economy of supplementing poor quality hay with a 24 percent protein grain mixture. As hay carries larger and larger percentages of legumes (clover and alfalfa), a dairyman can, however, save on protein in the grain until, with the best clover and alfalfa hay, a 20 percent grain mixture is enough.

In order to enable you to get the most out of your hay, Amco, following the recommendations of the colleges of agriculture, mixes AMCO 20% DAIRY to feed with clover and alfalfa, and AMCO 24% DAIRY for use with timothy and prairie grasses.

For qualities of hay in between timothy and alfalfa, mix the 24 and 20 percent feeds in varying percentages to provide just the percentage of protein that will be most economical. For example, with good mixed hay, mix 50 percent AMCO 24% DAIRY and 50 percent of the lower priced AMCO 20% DAIRY to make a 22 percent protein mixture.

UTILIZING HOME-GROWN GRAINS

WHEN a dairyman is fortunate enough to have supplies of home-grown oats, barley, or corn, his problem of adapting these to his roughage becomes one of building up the home-grown grains into 20 and 24 percent protein mixtures. For this purpose, Amco mixes AMCO 32% SUPPLEMENT DAIRY. By mixing this feed with the proper proportion of home-grown grains, you can easily make at home a dairy feed of the desired protein analysis which is just as good, provided the home-grown grains are sound and wholesome, as any feed that can be purchased on the market.

Let your Amco Agent help you



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Fifth county in U. S. to be accredited. Full time, fulltime with transportation without cost to buyers. Wire two days before arrival.
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Two Fine Reg. Guernsey Bull Calves
By grandson of Gettable Claire, 29,728 M., 1,620 lbs. fat. Dam of No. 1 calf gave 520 lbs. fat as a 3-year-old (private record) and is sister of calf No. 2. First check for 845 gets either calf. Hired T. H. Price. E. L. VAN DYKE, Freeport, Pa.

PURE-BRED GUERNEYS FOR SALE
One cow, three years old; three heifers, ages, twenty, fourteen and thirteen months respectively. One bull calf, two weeks old.
Wolf Creek Farm, R. 2, Shippen Rock, Pa.

Guernsey Bulls 3 to 13 months of age. Hired, HARRY G. BIRKLEY, Safe Harbor, Pa.

GUERNEYS FEMALES—ALL AGES
Two bulls calves three months old.
J. L. PHILLIPS, Delmar, Del.

Guernsey For Sale. A few young heifers and bulls. Registered, tuberculin tested, sound and new teeth. **ORSON MOUTH & SON, Smithton, Pa.**

Reg. Jersey Bulls ready for service. Accredited. Hired. **C. P. & M. W. HIGHAM, Gettysburg, Pa.**

Registered Holstein Heifers, bred by a son of on 1,100 lbs. cow. Age three months and older. Also bull calves. Pedigree prices on request.
Academy, Crows Farm, Inc., R. 1, Clinton, Pa.

FOR SALE. 20 Pure-bred Holstein cows, due to freshen this fall. A great producing herd. Fully accredited. **Gladyale Farm, Union, Pa.**

FOR SALE. Foundation Ayrshires of the best blood. Any age and both sexes. Hired fully accredited. **Geo. S. McConnell, Wellington, Ohio.**

Ayrshire Bull calves from Grand Champion stock. **Barclay Farms, Rosemont, Pa.**

AYRSHIRES bred by Scammon Governor Bagley, Jr., Champion Traction Engine State Fair, where dam Bagley of Excellence is the only cow of the breed with three R.H. records over 15,000 lbs., and whose sire is out of a cow with a record of 17,384 milk, 775 fat. Bulls ready for service. \$150 to \$200; bull calves \$100 to \$150. Hired known for heavy production and long terms. All calves treated to prevent growth of horns. Hired Federal Accredited and Tuberculin tested clean for Ayrshire. **SYCAMORE FARMS, Berks Co., Penna.**

SWINE

REGISTERED BERKSHIRES
Superior Breeding Stock. Pigs, Gilts.
Wolf Creek Farm, R. 2, Shippen Rock, Pa.

LARGE BERKSHIRES. Service Bares. Gilts. Hired and current. Pigs untested. The very best. **Geo. W. DODER, South Zanesville, Ohio.**

PIGS Fine, Scholastic, Type. Thirty Berkshires, 6 months old, registered. **W. F. M. SPARROW, Tullahoma, Tenn.**

Chester White Pigs Properly raised for breeding purposes. **R. L. NIXON, Cantonville, Pa.**

Chester Whites Big Time Chester Whites, from pure blood, all ages. 12 sows farrowed 12 pigs. Pigs low, most pleasing. **C. C. Cassel, Hershey, Pa.**

CHESTER WHITES. Polished big time Chester, blood, all ages. 12 sows farrowed 12 pigs. Pigs low, most pleasing. **C. C. Cassel, Hershey, Pa.**

BIG TYPE CHESTER WHITE SPRING BOARS and gilts. Looking out for fall pigs. **A. H. CROWNOVER, Mt. Sterling, Ohio.**

Chester Whites (Champion blood) Pigs, Gilts & sows. Big time Chester. **E. O. COLEMAN & SON, South Chester, Pa.**

Duroc Jerseys Service Bares, fall pigs either sex. **C. J. McLaughlin, 600 Keasey Bldg., Lancaster, O.**

DUROC GILTS bred for October farrow. Also spring boars. Special price for September. **H. E. JOHNSON, West Liberty, Ohio.**

TWO-YEAR-OLD DUROC BOARS. Grandsons of Great Union Sebastian. **Edwin, Ralph Wilson & Daughters, Bloomville, Ohio.**

REGISTERED Poland-China Hogs Spring boars and gilts. Also a spring sow with seven days farrowed pigs. Double littered and guaranteed. **R. A. Hunter & Sons, R. 3, West Alexander, Pa.**

Reg. Spotted Poland-Chinas. Spring gilts and boars ready for service. Fall pigs at 8 weeks. \$10.50 each. **A. M. Keiser, R. 2, Honey Brook, Pa.**

Spotted Poland-Chinas Raise big spotted Poland-China and boars. Pigs come from large stock. **ROYD HAMMON, Shick, Ohio.**

Spotted Poland Chinas 2 service boars, each 8 to 10 weeks old, pigs, 8 to 10 weeks old, 8 to 10 weeks old. Registered in book. Name and shipped (C.O.D.) This is all good quality stock and guaranteed to please. **A. J. STARKEY, R. 2, Steubenville, Ohio.**

BIG TYPE POLAND-CHINA 2-year-old boars, 2-year-old gilts, 2-year-old sows. Pigs, 8 to 10 weeks old. **O. C. POWELL, Ada, Ohio.**

0. I. C. Hired gilts, 2-year-old sows. **C. G. Fisher, Collinsville, O.**

SHEEP

Shropshire Rams from imported and choice lines. **A. F. KERNER, Geneva, Ohio.**

Shropshires and Durocs In breeding Shropshire and Duroc. **Ohio** raise with size and quality. 20 Shropshire ewes. Will produce few pigs in bunch. Duroc spring pigs, boars and gilts. **Surrounding and John L. Breeding, JNO. F. ORRICH, R. 5, Loudenville, Ohio.**

Livestock Notes

Feeding Influences Lamb Crop

THE proper use of a few pounds of grain now will probably account for more pounds of mutton than at any other time of the year. Many shepherds try to increase the size of their lamb crop by selecting twins or triplets for breeding stock. But it has been found that flushing, or increasing the feed of the ewes at breeding time may be of more importance than years of this kind of selection. Although the registration period of the sheep is short it is limited in most breeds to once per year. This offers interesting possibilities when we consider that there is more or less evidence that many kinds of animals had a limited breeding period.

But at present in the case of most of our domestic animals the young are apparently produced with equal freedom throughout the year. In some cases this change has been brought about quite rapidly, as the case of the three-hundred-egg hen from but lately removed ancestors which produced only a few eggs in the spring. But sheep seem to recent innovations and it seems best for the average man to try to get as many lambs as possible in one crop per year.

To provide a little extra feed for the breeding ewe at this time of year is a pretty certain way to add several husky lambs to the flock next spring. The size of the lamb crop depends on the care at lambing time, the care of the ewe during gestation with particular reference to her feed, and the care at lambing time. No amount of care at lambing time will make up for neglect now and now is the time to feed the sheep.

Shotes Get Charcoal

WE make cob charcoal every few days for shotes. Rake together three or four bushels of cobs (if dirty or slightly damp, so much the better). Start a fire at the windward side, maybe raking the cobs onto the fire as soon as well started. When the heap gets to the glowing point and before it starts to fall in dash on a bucket of water and stir in with the rake—scattering the cobs to cool. If your shotes are like ours there won't be a charred cob or remnant of one by the second night.

I have seen ovens made by tinner

and pits dug in the ground for the express purpose of burning cobs into charcoal for hogs, but don't like either. Just start the pile in the middle of a patch of scattered cobs, save picking them up and save handling the charcoal afterwards. **HIRAM DOBBIN.**

Hog Production Costs Vary Widely

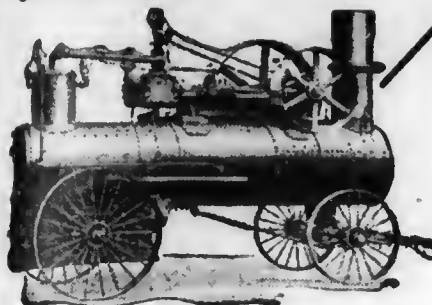
THE cost of producing pork varies on different farms. Cost records for a period of five years on representative farms in Greene county, Ohio, kept under the direction of John F. Dowler, assistant in rural economics, Ohio Experiment Station, show variation in cost on the different farms ranging from \$6.50 to \$13.02 per hundred pounds of pork.

The farms that were most successful in the production of pork seemed to have a number of managerial practices in common, which resulted in the lower cost. The sows were well fed before farrowing. Separate houses or coops were provided for each sow and these were placed on new ground or pasture each season.

The young pigs were kept away from straw stacks and feed lots about the barn and other buildings. They were given the run of large fields for pasture in summer and exercise in winter. Much labor was saved by hogging down corn, using self-feeders, and feeding unhusked corn in the fodder. Plenty of drinking water was provided at all times and it was kept from freezing in winter. Preventive measures were taken against cholera, and treatments were given for the round worm. The pigs were given comfortable quarters and were kept thrifty and contented from the start.

The farms with high cost of pork production, as a group, were less efficient in feeding and care, and required more labor and larger amounts of feed per unit of gain. The sows on these farms were often too fat or too poor. Straw stacks, stables and other unsuitable places were often provided for the farrowing sows, and most of the pigs were fed around the barn and in feeding lots that could not be plowed.

Fifteen pure-bred Percherons were purchased in Illinois recently for shipment to Canada by G. E. Arnold, who owns a thousand-acre farm in Quebec. Last year he bought 28 Percherons in the United States and this year he has secured thirty-five.

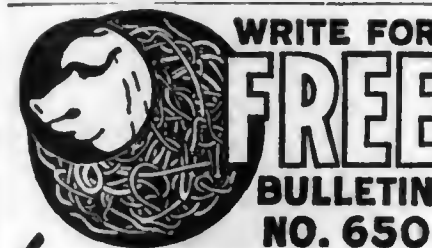


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You can depend upon steam to furnish abundant power under all conditions. Farquhar Locomotive Rigs are dependable and have long life. The engine is mounted on Flat Steel Saddles which are riveted to and made a permanent part of the boiler. Farquhar Ajax Center Crank Engine has been built for many years. It has been proven economic and dependable. Farquhar Boilers are easy and quick steamers. They furnish abundant dry, hot steam. Built in strict accordance with the A. S. M. E. Code. May be equipped to burn wood, coal, oil or gas.

If you need a dependable engine, boiler, or complete rig, write for Bulletin 426.

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Box 446, York, Pa.



WRITE FOR FREE BULLETIN NO. 650

Telling about **NEMA WORM CAPSULES** (Chemically-Infected Tetrachlorobenzene) For Killing Roundworms in PIGS and HOGS. Safe and Sure Quick Action—No Losses. Equally effective for Roundworms, Hookworms and Stomach Worms in Sheep, Goats, Poultry, Dogs and Foxes. Nema Capsules at your Drug Store. Nema Bulletin sent free by **ANIMAL INDUSTRY DEPT. OF PARKE, DAVIS & CO. DETROIT, MICH., U. S. A. CANADA, WALKERVILLE, ONT.**



BETTER Grain Bins Better Corn Crib. The Crib With the Steel Rib. THE proper curing and safe storage of corn and grain offered by Metal storage buildings, means many dollars extra profit in your pocket. Metal Crib and Bins are a good investment. But not all are alike. Find out about Buckeye—built for lifetime service. Prices right; Quality the Best. Terms to suit your convenience. Special terms on early shipment. Bulletin on "Better Storage" sent with catalog. **THE TOWNS & ARMSTRONG CO., 135 Main Street, London, Ohio.**



"PEERLESS" Double-crusher roll mill with "New Miracle" force-feed plates will grind green or dry ear corn and all kinds of small grains. Into a better quality of feed with less power.

Write for Catalog **A. M. DELLINGER, 723 N. Prince St., Lancaster, Pa.**

Navy Brand Concentrated Buttermilk From Tuberculin Tested Cows. 28 per cent milk solids, 6.4 per cent fat content, thick cream with no foreign ingredients. Reduces lactating and lessens danger of mastitis. Increases egg production and promotes fertility and vitality. Good for chicks, hatters and laying hens. Sold direct from the factory in barrels of about 45 lbs. Price for price.

TITUSVILLE DAIRY PRODUCTS CO., Titusville, Pa.

Soy Beans Valuable in Fattening Hogs

EXPERIMENTS conducted at the Purdue University Experiment Station show that soy beans are more valuable in fattening hogs than in growing rations for swine. Extensive use of soy beans as a supplement to corn and other grains for fattening hogs will conserve the rich animal protein feeds as tankage, skim milk and buttermilk for the brood sows and growing pigs, where there is greatest need for these efficient feeds.

A good mineral mixture should always be fed with soy beans in the ration because soy beans are deficient in important minerals required by swine. A mineral mixture composed of ten pounds wood ashes, ten pounds superphosphate and one pound salt has proved efficient in the Purdue experiments. Another good mineral mixture is ten pounds limestone dust, ten pounds special steamed bone meal and one pound salt.

Experiments Show Gain
The experiments at Purdue show that a pound of soy beans fed with minerals will practically replace a pound of tankage when supplementing corn and legume pasture for fattening spring pigs. In six experiments pigs fed shelled corn and ground soy beans free choice in self-feeder on legume pasture gained an average of 1.47 pounds daily and required 334.6 pounds of corn and 38.1 pounds of soy beans for each 100 pounds gain. The cost including pasture was \$6.10. A similar group of pigs which had minerals in addition to shelled corn, ground soy beans and legume pasture made an average daily gain of 1.57 pounds and required 329.4 pounds of corn, 25 pounds of soy beans and 4.5 pounds of minerals for each 100 pounds of gain. The cost was \$5.81. A third group of pigs had tankage with the shelled corn and legume pasture. They gained an average of 1.67 pounds daily and required 342.3 pounds of corn and 23 pounds of tankage for 100 pounds of gain. The cost was \$6.08.

Is Efficient Method
Growing soy beans with corn and hogging off the two crops with mineral mixture fed in self-feeders is an efficient method of using soy beans to supplement the corn for fattening hogs. Best results are secured when the hogs start with weights of 125 pounds or more.

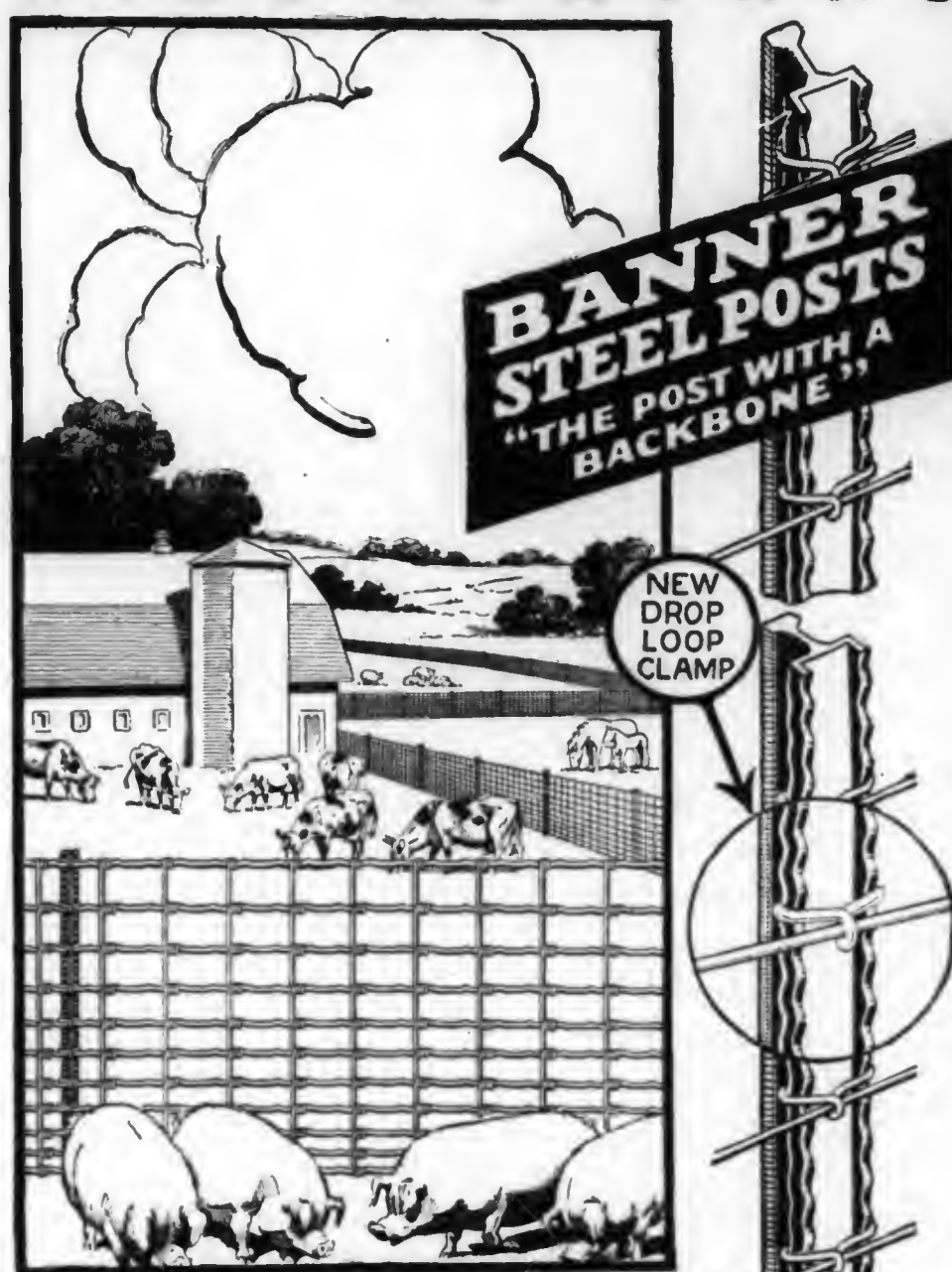
Soy beans should not be used as a substitute for corn in rations for fattening hogs because of the danger of producing soft pork. When soy beans are used properly as a supplement to corn the danger of soft pork is practically eliminated.

Experiments to determine the best methods of preparing soy beans for hogs show some interesting results. At the Ohio Agricultural Experiment Station it was proved that cooking greatly increased the efficiency of soy beans in the ration. At the Purdue Experiment Station it was found that whole soy beans were as palatable as ground soy beans and equally good gains resulted. **C. M. VESTAL.**

Need More Small Flocks on Farms

ONE of the best sheepmen in this part of the country says there should be ten ewes on every 80-acre farm. This number will not overstock the place, will not necessitate a great deal of sheep-tight fence, and will not interfere with other farm work. Sheep will thrive on vegetation which would otherwise be a total loss. The average farmer who will give sheep reasonable care can make extra money on a small bunch of sheep. The wool pays for the ewe's keep and the lamb is that much extra. **J. P. N. Maryland.**

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Good Fences Pay Profits in Farm Earnings

Having good woven wire fence and steel gates in the right places on your farm means much for you in getting the most in farm earnings through better rotation of crops and pastures.

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He carries fence posts, and gates in stock ready for quick delivery and is able to help you get the best quality fence. Our dealers sell fence of the following brands—all backed with our written guarantee.

Zinc Insulated American • Royal Anthony • Monitor Prairie • National and U. S. BANNER Steel Posts IDEAL Steel Posts

Banner and Ideal Steel Posts save time, work and money and insure having straighter, stronger fences. They are easy to handle, easy to haul, easy to drive and save money from repairs. Note the improved drop loop clamp and continuous notches which provide easy fastening of line wires. Protected for years of service by heavy waterproof linseed oil paint.

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Red upper. Gray sole. Four or five buckles. The most useful shoe on the farm. Slips right over your leather shoes. Kicks off in a jiffy. Washes clean like a boot. Made of the "U. S." Blue Ribbon rubber, it is built to give you the longest wear you ever got from an overshoe.

Ten Big Reasons why Chevrolet is 1st Choice of the Nation for 1928



WITH a million new Chevrolets on the road since January 1st—gaining thousands upon thousands of new owners every week—today's Chevrolet, by a tremendous margin, is first choice of the nation for 1928!

And no group of buyers have shown a more decided preference for this sensational car than those living in the rural communities of America—for here is provided, to a remarkable degree, those basic factors so essential in an automobile for use on the farm.

Visit your Chevrolet dealer today and see the car that has won such nationwide popularity. Satisfy yourself that the purchase of a Chevrolet assures you more automobile and more all-round satisfaction than you ever thought possible at prices so amazingly low!

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

QUALITY AT LOW COST

for Economical Transportation



1. DESIGN

For fourteen years Chevrolet has followed a policy of constant progress in engineering, with the result that today's Chevrolet is modern in every detail of design.

2. APPEARANCE

Today's Chevrolet provides beauty of design to an exceptional degree because Chevrolet has at its disposal the unmatched facilities of the Fisher Body Corporation.

3. FEATURES

Because the Chevrolet Motor Company has both the desire and the ability to provide quality features typical of the finest cars, today's Chevrolet is everywhere regarded as the world's most luxurious low-priced car.

4. PERFORMANCE

Chevrolet's amazing performance is the result of a valve-in-head motor whose power is a matter of worldwide fame and whose snap and smoothness are assured by alloy invar-strut pistons, large valves with mushroom type tappets, accurately counter-balanced reciprocating parts, and an extremely efficient fuel carburetion and distribution system.

5. COMFORT

Chevrolet is built on a 107" wheelbase, equipped with four long semi-elliptic springs set parallel to the frame. The seat cushions are provided with deep, resilient springs. This is a comfort combination unmatched in any other car at such low prices.

6. HANDLING EASE

For ease of control Chevrolet incorporates a full ball bearing steering gear, smooth-shifting transmission, light pedal action clutch and big non-locking four-wheel brakes.

7. ECONOMY

Chevrolet owners enjoy true economy of operation because of such modern features as pump circulation of oil and water, oil filter, air cleaner, ultra-efficient carburetion, crankcase breathing system and thermostatically controlled cooling.

8. MAINTENANCE

Chevrolet enjoys a worldwide reputation for low maintenance costs because it is rugged in construction, built of the finest materials and embodies the results of millions of miles of testing at the General Motors Proving Ground.

9. RESALE VALUE

Chevrolet's resale value is high because Chevrolet's rugged construction assures many thousands of miles of dependable transportation while Chevrolet's style is so advanced that it maintains its good appearance for years.

10. PRICE

As a result of worldwide popularity and tremendous production, Chevrolet is able to offer these beautiful modern cars at these amazing low prices:

The Touring or Roadster.....	\$495	The Convertible Sport Cabriolet.....	\$695
The Coach.....	\$585	The Imperial Landau.....	\$715
The Coupe.....	\$595	Utility Truck (Chassis Only)	\$520
The 4-Door Sedan.....	\$675	Light Delivery (Chassis Only)	\$375

All prices f. o. b. Flint, Michigan

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They include the lowest handling and financing charges available.



RADIOLA 16 is the leader in its class and one of the *biggest values* in radio

RADIOLA 16 was specially designed to provide high quality broadcast reception for homes not served by central station electricity.

It is the product of the famous radio research laboratories of General Electric, Westinghouse and the Radio Corporation of America.

Sturdily built of the finest materials, with the special RCA tuned-radio-frequency circuit, Radiola 16 is a compact, dependable instrument of remarkably fine performance.

For the "wired home," Radiola 18 is, of course, the most popular receiver, because of the extreme simplicity of its operation direct from the electric light circuit.



RCA RADIOLA 16—Very compact, sturdy, battery-operated, 6-tube receiver. Single dial control. Perfected RCA tuned-radio-frequency circuit. Mahogany finished cabinet. \$82.75 (with Radiotrons)



RCA RADIOLA 18—For direct operation from A.C. house current (110 volt, 60 cycle). Employs special A.C. tubes and rectifier. Electrically lighted dial. Finest set of its kind. \$115.00 (with Radiotrons)

The best reproducer to get the full tone qualities of the "16" or the "18" is the RCA LOUDSPEAKER 100A—\$29.

Either of these expertly designed instruments will provide thousands of hours of enjoyment for all the family. A good radio set is a necessity in the well-equipped home.

RCA sets may readily be purchased from RCA Radiola Dealers on the RCA Time Payment Plan.

The New RCA
EDUCATIONAL HOUR
Season of 1928-29

From Oct. 26 to May 10 Walter Damrosch will conduct a series of educational concerts for schools, Friday mornings at 11 (Eastern Standard Time) through 27 broadcasting stations.

RCA Radiola
MADE BY THE MAKERS OF THE RADIOTRON



A child can see the difference

You see here two machines devised for testing the cords in tire fabric.

On each machine is a strand of SUPERTWIST cord and of ordinary cord.

On the machine in the background the ordinary cord is broken, while the SUPERTWIST cord is intact.

Yet both cords were of equal length, and both cords were stretched in equal measure.

On the machine in the foreground the ordinary cord is lax, while the SUPERTWIST cord is taut.

Both these cords also were of the same length both were equally stretched.

When the tension was relaxed the SUPERTWIST cord sprang back to its original dimension, recovering like a rubber band.

But the ordinary cord lost its spring, and now hangs slack and distended.

By this simple demonstration a child can see the difference between SUPERTWIST cord and ordinary cord.

This difference is important, as one cause of the great superiority of Goodyear Tires over ordinary tires.

Built with SUPERTWIST cord, Goodyear Tires stretch and recover under the shocks of the road without damage.

Tires made of ordinary cord lack this ability and under road shocks suffer precisely the results you see here.

SUPERTWIST cord is Goodyear-developed and Goodyear-patented, and is used only in Goodyear tires.

Its elasticity and durability are reduced blowouts and similar troubles to the vanishing point.

SUPERTWIST is one of the reasons why the present Goodyear Balloon with the tread Weather Tread is called "the world's greatest tire."

It is one of the reasons why you should insist on Goodyear Tires and refuse anything else.

The Market Place

Markets Show Signs of Approaching Fall

By W. R. Whitacre

THE fruit and vegetable market shows signs of approaching fall. Heaps of golden yellow pumpkins appear along the street and the season for nearby peaches and cantaloupes is coming to a close. Pumpkins are bringing good prices here in Philadelphia right now, but a heavier supply later on may break the market. I saw some whopping big ones from Delaware today selling as high as \$2.50 apiece. These go mostly to the restaurants where they are displayed in the windows for a time and later made into pies. A small piece of pumpkin pie costs from 10c to 25c and even higher in the city restaurants and even then it is almost impossible to get the kind we usually have at home.

Small pumpkins have been selling at about \$1.50 a 54 basket and medium sizes at 25c each. It seems only a few years ago that Grandfather had pumpkin seedlings loaded with pumpkins in the fall and they were often not even worth the cartage to town. During the last two years there has been a good demand for pumpkins in this market, especially around Thanksgiving and Christmas, with bakeries barely able to get enough to fill their orders.

Is It Really Good Business?

The varieties of apples are coming to market. Grimes Golden and Red Delicious are two of these. The Grimes Golden is the one that I saw selling at 50c per bushel. The Grimes Golden is a good variety, but it is not as fast as he could, as he said, \$1.50 was a good price and it was not pay to wait until they were in the fall. The Delicious were coming to market in some extent but were not in good condition by any means. A grower can be said pro and con in apples that are not making as much price, which he may not be able to get later in the season, but the average consumer may not care. The Grimes is a good variety, but it is hard to grow. Sampling small green fruit, I found that they often sell well at this time of year, as they are in the market. The cooler days also increase consumption of apples and other root crops. Weather is a big part in the market. A few cool snappy days will make the sweet potato market for market for lemons or

farmer who had potatoes should dig just half of them and allow the rest to stay in the ground. In this way there would be only half as many potatoes, and the price, I assume, would be twice as high. Such a plan if carried in effect would raise the price of potatoes, but the "if" is a big one. It seems to me it would be more practical to plant just half as many potatoes in the first place. There is one aid in a year when markets are over supplied that can be worked and that is to leave the culls and poor stock at home and to market only the best and to pack and grade that best carefully.

Market Gardening

By R. L. WATTS

A Pennsylvania subscriber has suffered losses from bean weevils. Regardless of how and where they have been stored, these pests have bored the beans full of little holes.

Fumigation with bisulphide of carbon is the best treatment, using about one ounce to a bushel of beans. The beans should be placed in a tight container, such as a coal oil barrel, the bisulphide poured on top of the beans and the vessel closed. The vapor will penetrate throughout the beans and kill any insects that may be harboring within them. This material is very inflammable and should be kept away from lights and fires.

A. J. K.—"We are desirous of information as to what causes celery to send up seed stalks, thus spoiling the plant for table use. We raise the Giant Pascal variety."

Poor seed is held responsible for celery going to seed perhaps more than any other factor. At any rate, we should exercise the greatest care in buying celery seed. Low temperatures while the plants are being started may also cause this loss, especially if the low temperature continues over a long period. The early crop suffers most frequently because the plants are often kept on frames or houses that are too cold.

A reader of Pennsylvania makes the following inquiry about Lima beans: "What kind of soil is best for Lima beans? Can you tell me what ails my Limas? I planted them early in May. They have vines from 15 to 20 feet long, but very few beans. I put manure on the ground."

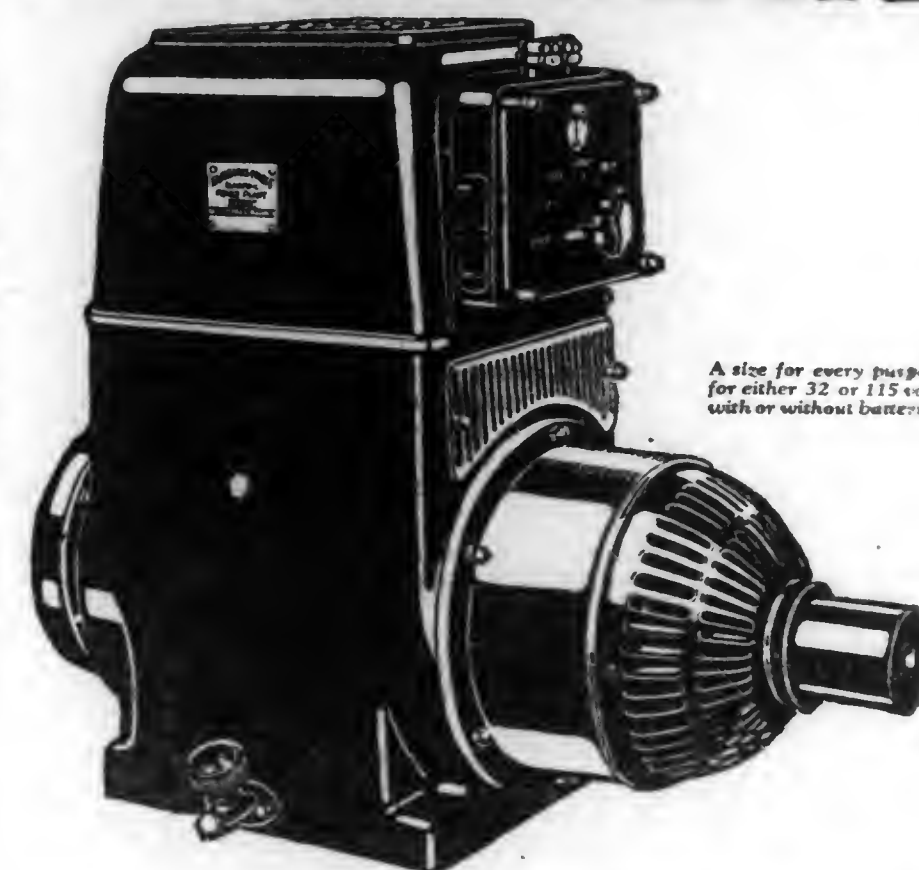
Lima bean do best in warm, fertile soils and also in warm climates. Rich, sandy loams are ideal. It is possible that you used too much manure, especially if it was fresh. Only well decayed manure should be used for Limas, and some fertilizer containing both phosphorus and potassium is helpful in getting a good setting of beans. It is likely that frequent and excessive rains prevented or postponed the setting of the flowers and perhaps this was the chief factor in your getting a small crop this year.

The lack of soil moisture in some parts of the country is a great handicap in the development of alfalfa and clover. Fortunately are the growers who can irrigate.

Get the squashes made over before Jack Frost gets them.

New fields of alfalfa should not be pastured, says the Pennsylvania State College. If the alfalfa has been seeded alone and the weeds become numerous the field can be cut high when the alfalfa plants are just coming into bloom. Do not cut the alfalfa if there are only a few weeds.

INVESTIGATE!



A size for every purpose for either 32 or 115 volts with or without batteries.

BESURE that your dollars purchase the latest in a Home Light Plant! Investigate! Weigh carefully comparative values and don't buy before you've seen a demonstration of the Fairbanks-Morse Plant.

Watch the smooth, purring action which tells you of the perfect balance of rotating parts—saving wear on bearings. See the clean, clear exhaust that proves the engine is extracting maximum power from its kerosene fuel. Your dealer will open the hood and show you how this compact, self-contained unit is instantly accessible notwithstanding the complete enclosure of everything but the useful pulley for belt power. He will tell you of the "Ricardo" head engine—how it follows latest automotive engine practice. He will demonstrate the simple, single-knob control—innumerable exclusive features which enable your dollars to purchase steady, flickerless light at less cost, and features that add years of service to the life of this plant.

Prepare yourself for your investigation of light plants! Use the convenient coupon to secure interesting booklets on what you should look for in a plant deserving of your home.



If you have electricity, as little as \$70 will bring Running Water to your home. There is an F.M. Water System to meet any water service condition regardless of source of water or power available. Use the coupon.

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Several agents in each county; if you do not know one, write us at
268 MAIN STREET, BUFFALO, N. Y.

Built with SUPERTWIST cord, Goodyear Tires stretch and recover under the shocks of the road without damage.

It is one of the reasons why you should *insist* on Tires and refuse anything else.

the same time, the *Journal of the American Medical Association* (JAMA) has been the most influential journal in the field of internal medicine. The *Journal of the American Medical Association* (JAMA) has been the most influential journal in the field of internal medicine.

A. O. ...
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 (1875) ...
MERCHANTS' MUTUAL CASUALTY
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23% more eggs from the Pan-a-ce-a flock

1000 White Leghorn chicks were divided into two equal flocks and given same feed and care. No difference except that one flock had Pan-a-ce-a mixed with all their mash, the other did not.

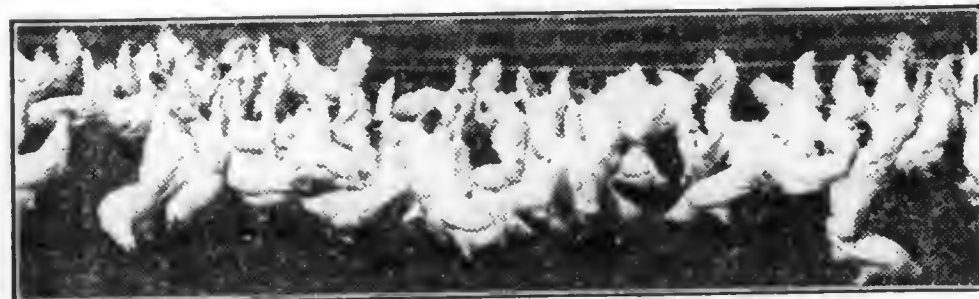
At eight weeks old the cockerels were sold and a laying test continued with the pullets.

Both flocks received the same growing mash until maturity, then the same laying mash, and the one flock continued to receive two pounds Pan-a-ce-a with each 100 pounds mash. Because of deaths there were 38 more strong, healthy pullets in the Pan-a-ce-a flock.

Laying began at five months. By December 1st production was a little over 35%. A strict account now taken included cash from sale of cockerels, cash for eggs, valuation of pullets.

On December 1st, when both flocks were well started in laying, the Pan-a-ce-a flock had laid 23% more eggs than the non-Pan-a-ce-a flock.

Deducting cost of feed, the Pan-a-ce-a flock had earned \$83.70 more profit than the non-Pan-a-ce-a flock.



A pen of pullets which received Pan-a-ce-a

PAN-A-CE-A

starts pullets and moulted hens to laying

One extra egg pays for all the Pan-a-ce-a a hen consumes in six months

RESEARCH FARM—DR. HESS & CLARK, Inc.—Ashland, O.

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With Drew Line Poultry Equipment

Clean quarters—clean nests—clean feed—clean water—that's what you've got to give your hens if you want to make the big, clean-cut profits which successful poultry raisers are making today. Thousands of poultrymen have found that as soon as they began to use Drew Line Poultry Equipment, they cut out their losses from waste and disease and started to draw down bigger profits than ever before. Why don't you do the same?

Drew Sanitary Steel Nests will protect your hens from lice and mites, give you healthier hens, higher egg production in winter and more profits. With the Drew Egg Mash Feeder you can cut \$15.00 per year off your feed bill—save labor and get more eggs.

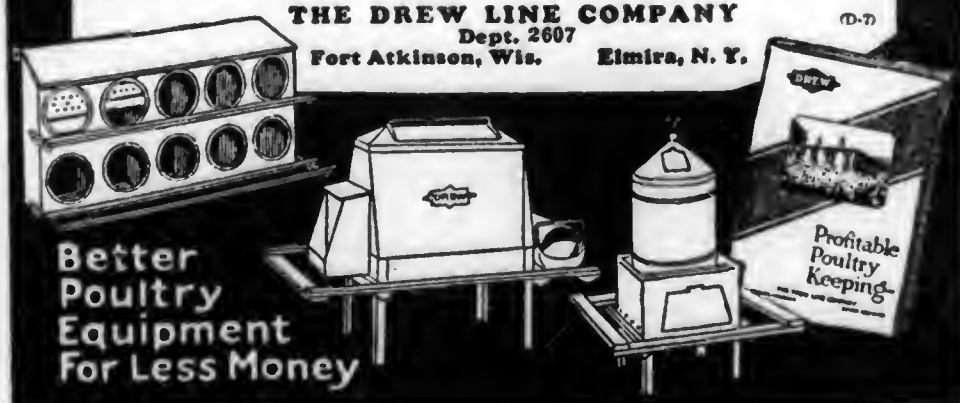


The Drew Eight Gallon Lamp Heated Waterer will care for 150 hens and will pay for itself in 90 days with the increase in egg production. The entire Drew Line contains everything you need for profitable poultry keeping and every item is strong, durable, efficient and priced unusually low.

Poultry Book FREE

Drew Line Equipment is sold by good dealers everywhere. Send for our Free Poultry Equipment Book which shows the equipment and methods others use to get the biggest profits—and we will send you the name of our nearest dealer. Write for this FREE Book today.

THE DREW LINE COMPANY
Dept. 2607
Fort Atkinson, Wis. Elmira, N. Y.



Better Poultry Equipment For Less Money

Give The Pullets a Chance

By R. L. Scharring-Hausen

AT this season of the year, when the older birds have about completed laying and are ready to go into the winter molt, the new pullets must be looked to for income, and the proper care and housing of the young birds will go a long way toward insuring profits on the poultry farm for the next few months. Proper preparation of the laying house is of vital importance at this time. In getting the building stock it is necessary to get rid of any vermin which may infest it and also to insure sanitary conditions which will lessen the chances of disease which newly housed birds are susceptible to.

The first thing to do is to remove all the old litter and droppings, clean out the old nesting material, brush down the ceiling and side walls, and scrape the floor clean of any dirt or droppings which may be stuck fast to it. In order to clean the floor easily it is a good idea to sprinkle it with water and let it stand over night, which will loosen accumulated material so that it can be removed with a spade or scraper without too much trouble. After all the dirt has been removed, the walls and ceiling should be thoroughly whitewashed. This will brighten the interior, kill germs, and fill many cracks and crevices in which mites could otherwise hide. If it is not possible to secure quicklime a good whitewash can be made with builders' finishing lime, which should be soaked for a day or so prior to using. It is always a good plan to add as a sanitary precaution some form of poultry house disinfectant, which can be had at any hardware or supply store, to the mixture.

After the whitewashing is done, the roosts, drops and floor will require attention. Many poultrymen treat these with carbolineum, a common wood preservative and disinfectant which is sold for the purpose. Another effective and somewhat cheaper treatment is to apply waste motor oil, which can be secured free or at little cost from any garage. This can be brushed on with an ordinary whitewash brush very easily. This application will destroy mites and also act as a germicide.

Clean Hoppers and Nests

Fixtures such as hoppers and nest boxes can be treated in similar fashion, although many prefer to whitewash them, as otherwise the eggs may be tainted from the odors of the disinfectant. Drinking fountains should be scrubbed and sunned.

After the house is thus prepared the litter may be put in, using straw or waste hay or any material which is dry and free from dust or mustiness. I do not think it advisable to use too deep a litter, as the birds may not scratch in it for grain.

In catching the pullets they may be baited into the range houses with a little grain and handled during the daytime, which is much easier than trying to catch them at night. It is also advisable to house pullets of different ages or degrees of development separately, as the mature birds are to be fed for egg production while the others must be treated so as to develop or fatten them. At this time they should be dusted with sodium fluoride or given the nicotine sulphate treatment to rid them of lice.

Each bird should be allowed four square feet of floor space, but Leghorns will get along with one foot less if care is used in keeping the house clean.

The new pullets must be allowed ample hopper space and be well fed, in order to get them to produce. It is advisable to keep them in good flesh, so that plenty of grain should be given

and perhaps a fattening mash used at noon. Clean fresh water, grit, shell and greens must of course be provided. It is essential that the house be well ventilated but free from drafts.

It is surprising how soon a pen of pullets which are eating heavily will become dirty, so it is necessary to clean out the litter often in order that their surroundings will be always clean.

Newly housed birds are often flighty, so it is best to rap on the door or whistle before entering the pen in order not to startle them, as sudden frights play havoc with production.

Fall colds, pox and roup are the bane of pullets, and these troubles sometimes seem unavoidable. Good care, liberal feeding and careful sanitation will help a lot in warding off these diseases, or at least in minimizing their seriousness if outbreaks do occur.

Nest Box Notes

HENS that are still laying in September and October are the ones to save for the breeding flock. This is a good indication of a high producing bird, although it takes the longest to tell the story in fall. A poultryman may select a flock of pullets in the fall, all good looking birds, and find that after he has trapped them for a year that some individuals will have laid more than twice as many eggs as the others, and in addition to that probably the low yielders will have produced during the spring when eggs are cheapest.



I have just such a flock, with high producers, good producers, and poor producers. The birds that have made 200 or over will be mated with the best pedigree cockerels I have, while those which have just fallen short of the mark will go into the general breeding flock to be mated with pedigree males, although their offspring will not be pedigree, as will be done with the special matings. The low producers will go into the soup.

Trapnesting all the birds on a farm is a big undertaking, and most breeders select likely looking pullets in the fall for a special flock to be trapped. Unfortunately many good birds in the general flock will be lost as far as their records are concerned. However, some men are improving their flock averages by trapping the whole flock one week out of each month, and discarding birds which do not show up after a few such periods. This method does not give definite results, but does give a pretty good idea of which birds are producers and which are loafers. Some birds lay very few eggs in the course of a year and are expensive to have in the flock.

The New Jersey Station has just issued a little circular on the feeding of cod-liver oil, and recommends the following practices in summary:

1. Purchase your oil from a reliable dealer.
2. Preferably select a light colored oil.
3. Purchase oil which has been tested. This gives you a better chance of obtaining good oil.
4. Keep container in which oil is obtained closed and allow as little access to air as possible.
5. Mix oil with the feed once a week.

Sunshine through CELO-GLASS Keeps Poultry Healthy

Make POULTRY PROFITS SURE WITH:

1. Pure Bred Stock
2. Balanced Rations
3. Good Houses
4. Sanitation
5. Ultra Violet Rays through CELO-GLASS



YOUR chickens will retain, all winter long, the health they have stored up during the summer when you use Cel-O-Glass in your poultry houses. Cel-O-Glass lets in the active portion of the ultra-violet rays of the sun—the rays which are plentiful out-of-doors, but which cannot penetrate glass, wood or soiled cloth curtains.

Ultra-Violet Rays Bring Health

Scientific as well as practical tests prove that ultra-violet rays through Cel-O-Glass keep poultry healthy. These rays kill bacteria instantly and keep down the spread of disease. They induce better assimilation of minerals which increases egg production and hatchability

and insures stronger shell texture. Cel-O-Glass keeps laying houses warmer, dryer and lighter.

Greatest Authorities Approve Cel-O-Glass

Colleges, experiment stations and poultry authorities recommend Cel-O-Glass for poultry houses. More than a half million farmers and poultry raisers are bringing health to their million birds through Cel-O-Glass. For best results and longest service install it in a vertical position in the entire south side of your poultry houses. It is extensively used to prevent stiff legs in swine and to bring the disinfecting qualities of pure sunlight into dairy barns and other farm buildings.

Cel-O-Glass is made with a tough wire mesh base. It is durable and economical. It is not a cloth. If your dealer does not carry Cel-O-Glass, write for name of nearest dealer who does. Mail coupon for valuable book, "Health on the Farm". Acetol Products, Inc., 21 Spruce St., New York, N. Y.

CELO-GLASS

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U.S. PATENT 1,580,387

Acetol Products, Inc., 21 Spruce Street, New York, N. Y.
Gentlemen: Please send me your book "Health on the Farm," postpaid and free of charge.

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Reg. U. S. Pat. Off.

Brown's Beach Jacket

They have found the jacket "so entirely satisfactory and comfortably warm" that they experience real pleasure in wearing it in the Arctic regions. Just the cold protection for the outdoor man. Made of strong, windproof knit cloth with knit-in wool fleece lining, and is cut to fit snugly without binding. Three sizes—coat with or without collar, and vest.

Ask your dealer
BROWN'S BEACH JACKET COMPANY
Worcester, Massachusetts

Kill Rats Without Danger

A New Extremist that is Wonderfully Effective yet Safe to Use

K-R-O is relatively harmless to human beings, livestock, dogs, cats, poultry, yet is guaranteed to kill rats and mice every time.

Avoid Dangerous Poisons

K-R-O does not contain arsenic, phosphorus, barium carbonate or any other deadly poison. Its active ingredient is as safe as recommended by the U. S. Dept. of Agriculture in their latest bulletin on "Rat Control."

Many letters testify to the great merit of K-R-O. "I bought two 75c cans K-R-O and put it out according to directions. In ten days I had a farm with following result: Picked up and bled away 278 dead rats. — J. H. Tolman, Warden No. 2, Ark. State Farm, Tucker, Ark."

SOLD ON MONEY-BACK GUARANTEE

75c at your druggist or direct from us at \$1.00 delivered. Large size (four times as much) \$2.00.

The K-R-O Company, Springfield, Ohio.

K-R-O KILLS RATS ONLY

EGGS, Etc.—Small containers from producers in your territory bring very attractive prices. No other business always. Refer to case, ZENITH BUTTER & EGG CO., 170 Duane Street, New York City.

When writing Advertisers please mention The Pennsylvania Farmer.

Bulletin Service

(The bulletins listed under this heading have been supplied by manufacturers for free distribution. If you want a copy of one or more, just list them on a postal card or in a letter and mail to Bulletin Dept., with your name and address. They will be sent to you without charge of any kind.)

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2. EUROPEAN CORN BORER.
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5. FARM SANITATION.
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8. SULPHATE OF AMMONIA FOR POTATOES, FRUITS AND VEGETABLES.
9. POLITY, THE MONEY MAKER.
10. ADVICE ON Calf RAISING.
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BAKED EGGS and R. I. EGGS. Just what you want for profitable full broilers. Send for low price and Catalog. Breckford Poultry Farm, Box 171, McClure, Pa.

Live Broilers and Poultry Wanted

HIGHEST PRICES CHECKS SENT DAILY

Oldest Live Poultry house in New York City. Established 1882, offers you an unlimited outlet for your live poultry. Write for shipping lists and free holiday calendar folder F.

Krakauer Poultry Co. Inc. Bonded Commission Merchant
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BUY THE FEEDS IN STRIPED SACKS



A scene on White Leghorn Egg Farm, Hegins, Pa., where Quaker Ful-O-Pep Poultry Feeds are used

What a Successful Farmer thinks of "Mixing your Own"

READ the letter from John R. Schroepe, and ask yourself: "Can I afford to overlook such an important factor in Poultry success as the line of Quaker Ful-O-Pep Feeds?"

Profit-making flocks the country over are daily proving the value of this line of scientifically correct feeds. Made to the proved formulas of experts, made in the clean, modern mills of The Quaker Oats Company, made from the best ingredients to be had in all the world, Quaker Ful-O-Pep Feeds do the work, and do it at a profit!

Put Your Hens on Quaker Ful-O-Pep Egg Mash This Winter

Now is the time to put your layers on Quaker Ful-O-Pep Egg Mash, the mixture that keeps hens busy through the short, chill days. Eggs produced from this mash are large, uniform, and bring best prices. It will assure you finest quality hatchling eggs next Spring.

Ful-O-Pep Egg Mash is a scientifically balanced mixture of just the things a hen needs to make eggs. It is thoroughly mixed, so that at every mouthful the bird gets some of every ingredient. The base of this feed is fresh, pure oatmeal. To

this are added essential minerals, proteins, molasses, and cod liver meal.

Cod liver meal keeps hens in good condition. Keeps them active and eager-to-lay. Start now—a Quaker dealer in your neighborhood is waiting to serve you.

WHITE LEGHORN EGG FARM
JOHN SCHROEPE, Prop.
Hegins, Schuylkill Co., Pa.

The Quaker Oats Company, Chicago, Ill. Aug. 1, 1928

My dear Sirs:
I have been using Ful-O-Pep feed for three years with very good results.

Before that time I mixed my own feed. The principal reasons that I changed to commercial mixed feed and selected Ful-O-Pep were: to save time; to eliminate danger of lack of uniformity in the home mixture; and to make certain of pure oatmeal base; also, I wanted a feed containing Cod Liver Meal.

I am no dealer in poultry equipment and feed and therefore have no interest except in the merits of the feed and the results I am getting.

A few of my pullets commenced to lay when four months old. I am well satisfied with the results that I am getting, and have no reason to change.

Yours very truly,

John Schroepe

Quaker FUL-O-PEP POULTRY FEEDS

The Quaker Oats Company
CHICAGO, U. S. A.

BUY THE FEEDS IN STRIPED SACKS

Ducks Die

P. L.—"I had 22 White Pekins six weeks old and seven eight weeks old. I found the largest one dead without seeing that anything was wrong with it and since then every day one, two or three die. At first I did not notice that they seemed sick, but later they seemed to get weak or stiff in the legs and in a few hours they were dead. Now they get stiff and in about a day they get blind and fill next day they are dead. I have only two left. They seem all right. I have been feeding about one-half middlings and one-half wheat bran twice a day and at night cracked corn. I had them in a pen and changed it to fresh grass every week during wet weather. I did not let them out of the brooder house, but during the week that the first died it was so hot that I left them out in the pen during the night. Where did I make my mistake?"

You made a serious mistake in the ration which you gave your ducklings. You did not provide the growing fowls with animal protein so essential for growth and development. Lameness in ducklings is usually caused by lack of animal or mineral matter in the ration. Overfeeding, lack of cleanliness and dampness are other causes of lameness. A good ration for ducklings six to eight weeks of age can be made as follows: Corn meal 20 pounds, low-grade flour 10 pounds, wheat bran 10 pounds, meat scrap four pounds. Green food and sharp sand should be always available.

Enter Tri-State Show Now

ENTRIES are being received now for the Tri-State Apple Show to be held in the Auditorium of the Pittsburgh Chamber of Commerce, November 1, 2 and 3. About \$3,000 in premiums will be awarded to apple growers of the Pittsburgh district at this show which is sponsored by the Pittsburgh Chamber of Commerce, and banks of the tri-state district. Apples grown in western Pennsylvania, the northern panhandle of West Virginia and eastern Ohio will be eligible.

Premiums of \$25, \$20 and \$15 will be given for exhibits of three round-bushel baskets of each of ten leading varieties. Other substantial prizes are offered for one-bushel, sixteen-apple and five-apple exhibits. Five premiums ranging from \$100 to \$20 are to be given in the farm display class which includes exhibits of five or more standard varieties totaling not more than 20 bushels for each entry.

No entry fee will be charged at this show and there will be no charge for space. Entry blanks and premium lists may be obtained from T. C. Foley, Secretary, Natural Resources Division, Pittsburgh, Penna. Entry blanks must be returned to Mr. Foley not later than October 31st.

Reduced Fare Rates Offered

PERSONS planning to attend the National Dairy Exposition at Memphis, Tennessee, October 13-20, may take advantage of reduced railroad fares by securing certificates from the National Dairy Association. To secure the lower fare rate the certificates must be presented at the time tickets are purchased; they should be secured immediately.

These reduced fare certificates may be secured by writing to S. H. Anderson, Secretary, National Dairy Exposition, Memphis, Tennessee.

Of the 39 pens which are competing in the second annual West Virginia egg-laying contest which has been in progress for 43 weeks, the 13 leading pens are White Leghorns, according to the latest report made by T. Y. McGowan, agricultural agent in Kanawha county.

Another Contest-Proven

Fact for Pennsylvania Poultrymen



Speed Up Molting!
Help hens back to laying. Regulating supplies extra minerals like sulphur to help build new feathers. Also vegetable tonics to take up molting strain.

See your dealer. If he does not carry the size you need, write us. Supplied in 100, 50, 25, 12 and 4½ lb. sizes.



Poultry Regulator

57 years of success and fair dealing behind the money back guarantee of any Pratt remedy

PRATT FOOD CO., Philadelphia, Pa.

58 TO 62% HIGH-GRADE EFFICIENT PROTEIN
15 TO 20% BONE PHOSPHATE OF LIME
NATURAL IODINE
NATURAL SULPHUR
THE ANTI-RACHITIC VITAMIN D
ALL IN



Where will you find another such combination of food values for your flocks? Poultry, and Cattle rations? MADE FROM THE WHOLE FRESH HADEN FISH FRESH FROM THE SEA

Write us for free samples and feeding instructions.

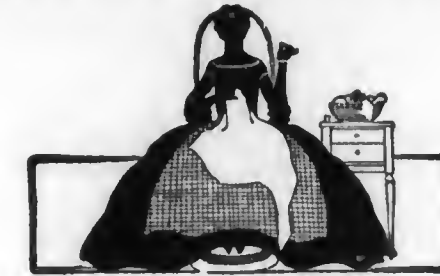
CHARLES M. STRUVEN & CO.
114-116 H. S. Frederick St., Baltimore, Md.



Insist on the White Carton NOTE package at right—picture of one horse only. Just 2 words—Caustic Balm. New Made in U.S.A. Penetrating, soothing and healing—an unexcelled liniment, counter-irritant or blister for veterinary and human ailments. Large bottle (lasts long time)—\$2.00. All druggists or direct. Lawrence-Williams Co. Sole proprietors and distributors. Cleveland, Ohio

CAUSTIC BALSAM

THE FARM



HOME PAGE

A Boy's Right---His Own Room

By JEAN WADE

"A BOY'S way is the wind's way," and many a mother, standing in the doorway of her son's room, gazing at the havoc wrought by a few minutes' occupation, feels that it is "the way of the storm wind." A room of his own, a place to which he can go and close the door on the rest of the world, is the natural right of every boy. It must be entirely his own; not a catch-all for portraits, crowded out of the living room, nor a convenient corner for the sewing machine that doesn't fit anywhere else. Otherwise you cannot expect him to keep it in order.

Every object in the boy's room should have a definite reason for its existence. Is it strong, is it simple, and does it serve a practical purpose—these are the three tests that each piece of furniture should meet before it is allowed to cross the threshold.

A Coat of Paint Comes First

In planning the room, let us start with the floor. Perhaps a coat of paint or one of the new brushing lacquers will improve its appearance. The floor should be at least a shade darker than the walls, and the walls are a shade darker than the ceiling, if an appearance of balance is to be maintained.

Perhaps the boards are scarred and worn, requiring any attempt at improvement. In that case, a good method of refinishing the floor is to invest in one of the modern linoleums, selecting a color to design, in tones of deep red or a deep linoleum in two shades of brown. A layer of warm deadening felt should first be pasted to the wood underneath. The linoleum is then pasted in turn to the felt lining and the seams and edges are tightly sealed with waterproof cement. Installed in this way the floor presents a smooth crack-free appearance and its lustrous easy-to-clean surface is a good foundation for the room. Under two small hooked or braided mats at the side of the bed and the bureau—and your floor is complete.

The Furniture Should Be Strong

Your bedwork is probably dark brown, although it may be painted any desirable shade. If the wall can be painted a creamy tan or you can afford one of the new washable wall materials, that problem is settled. If not, select an inexpensive paper of the same shade in a simple all-over design, not too dark in tone. Have your draperies of cretonne or chintz in gay-colored patterns on a dark background and make up simple straight curtains several inches longer than the window.

A comfortable mattress on good box springs is the essential requirement of the bed, which should be at least three-quarter size. The bureau, with its simple runner of stenciled linen, must have a big mirror and roomy drawers. A strong table with drawer space for writing and study materials and a student lamp or other adequate lighting equipment, a straight study chair, a deep roomy wicker chair upholstered in a fabric that harmonizes with the drapery materials, and the main pieces of furniture are in place.

Around the walls of your room must be plenty of shelves of the wide, painted variety which the boy can make himself. Book shelves lend museum

space for the current collection of moths, stamps, athletic paraphernalia, cups, trophies and other school-day souvenirs—the more shelf or cupboard space the room can accommodate, the easier it will be to keep order. One or two simply-framed reproductions of fine pictures, if the wall space permits, and the room is complete—a room to which the growing boy will enjoy in-

visiting his friends and where he will have plenty of reign for the free expression of his developing personality.

Note.—In the Home Department is a volume "chuck full" of interest to the boy and his parents who are fixing up "his room." Here are pictures and suggestions, working drawings and instructions for making all sorts of equipment and furniture. Desks, tables, chairs, book racks, furniture of every sort is given consideration. A. Neely Hall has compiled the volume, Home Handicraft for Boys, and we lend it to you if you send the postage. With your request send 15 cents to cover insurance and mailing.



The Room Must Be Entirely His Own

Cheese Offers Tempting Menus

These Suggestions Are Easily and Quickly Prepared

MORE and more we appreciate the value of cheese in the summer diet. Rich in vitamins and equalled by few other foods in nutritional value, it requires no cooking, is easily and quickly prepared and offers tempting menus.

An Appetizer

Hors d'Oeuvres a la Suisse are delightful little appetizers. Arrange four thin inch-wide strips of Switzerland cheese on small serving plates radiating them from the center. Spread each strip of cheese lightly with mustard. On one strip arrange a little hard-cooked egg white finely chopped and mixed with French dressing. On the second the egg yolks also chopped and mixed with the dressing. On the third a little chopped stuffed olive and on the fourth just a suspicion of grated onion. Garnish the plates with water cress.

Sandwich Lunches

Switzerland Anchovy Sandwiches: Trim the crusts from thin slices of rye bread and butter lightly. Cut in desired shape, then spread with anchovy paste and cover with slices of Switzerland cheese. Put together sandwich fashion and serve with tart pickles.

Sky Scraper Sandwiches: Trim the crust from a loaf of bread and cut the bread across from end to end in long slices about one-fourth inch thick. Spread the slices with softened butter,

then begin to arrange the "sky scrapers". On the first long slice of bread arrange slices of cold boiled ham. On the next slice place Switzerland cheese cut very thin; dot this here and there with mustard. Cover the third bread slice with sliced tomatoes brushed with mayonnaise. Swiss cheese dotted with Chilli sauce or catsup is arranged over the next slice, lettuce lightly covered with mayonnaise over the fifth, and ham is used for the sixth. Then the last slice of bread is placed on the pile, buttered side down, and the loaf is wrapped in a napkin and pressed fifteen minutes. Then it is cut in sections of any desired shape and size, or carried intact to the picnic to be sliced at serving.

Switzerland and Ham on Rye is a new variation of an old favorite. Slice rye bread and spread with softened butter, then with chopped ham moistened with boiled salad dressing or mayonnaise, flavored highly with mustard. Over the ham arrange thin slices of Switzerland cheese and cover this with sliced pickles. Top with buttered rye bread and trim into shape.

Open Onion Sandwiches: Slice a medium sized onion very thin and pour boiling water over it. Let stand a few minutes, then drain and cover with cold water. Butter slices of rye bread, cover with shredded dried beef, then with the onion slices and top with Switzerland cheese sliced thin. Place in the oven until the meat begins to sizzle, then brush with mustard and serve with pickle relish.

Is Your Home Life Attractive?

"Dost thou sigh for pleasure? Oh, do not widely roam, But seek that hidden treasure At home, dear home."

IS our home life on the farm as attractive and happy as we can possibly make it? Do we have music, plenty of books, good games, and do we allow the children the use of their home to entertain friends? Do the children have a share in the profits of the farm?

My own mother's chief delight was to make her seven children happier. Each day found her cheerfully planning for better times, and our memories are enriched by the pleasures of happy childhood. No one can ever dim those memories.

As soon as my children showed a healthy interest in the feathered friends, they were given an active share in the poultry business. The oldest one raises the ducks, geese grip the attention of number two and the youngest one cares for the guineas. I can supervise it all while I tend the chickens. They handle the money needed in caring for their choice, and the profits furnish funds for wholesome recreation. Together we go shopping or frolicking. Sometimes it's a good movie or a sight-seeing expedition.

I am always delighted to see how glad they are to "get home" after such a jaunt. We parents attend the various school activities in winter, and the basketball games are as good for us as for the youngsters. We are never too old to enter in the evening's fun with our children and their playmates. Many an evening is happily spent popping corn, making candy, dancing to the tunes of the phonograph and playing games.

On Sunday we read stories from the best book at hand—stories from the Bible, and long talks and discussions often follow. Our children seek pleasure. Where they are happiest is where they long to be. Let no other place outshine the home, and there is where you will find them, XORA KELLY.

Timely Tips

A square or oblong sheet of clear glass placed over a mouse hole when in use will hold the book open and prevent leaves turning. The mouse is easily read through the glass. To prevent marring the picture the glass may be bound with ribbon, velvet or passepartout.

A flower-loving friend produces unusual and beautiful effects by bending vines and thrusting the ends into the soil in flower-pots where vines are growing, then training the vines to follow the wires. Madder vines, ivy and many others are lovely trained in this manner.

The rapid growth induced by filling flower pots with the black soil formed by rotted chips tempted me to use it until I discovered that the good results were short-lived. The strength of such soil is soon exhausted. It should be mixed with heavier soil as it dries out too quickly. My best results are obtained by the use of fine, black soil from an old barnyard unused for two years, and good garden soil thoroughly mixed together.

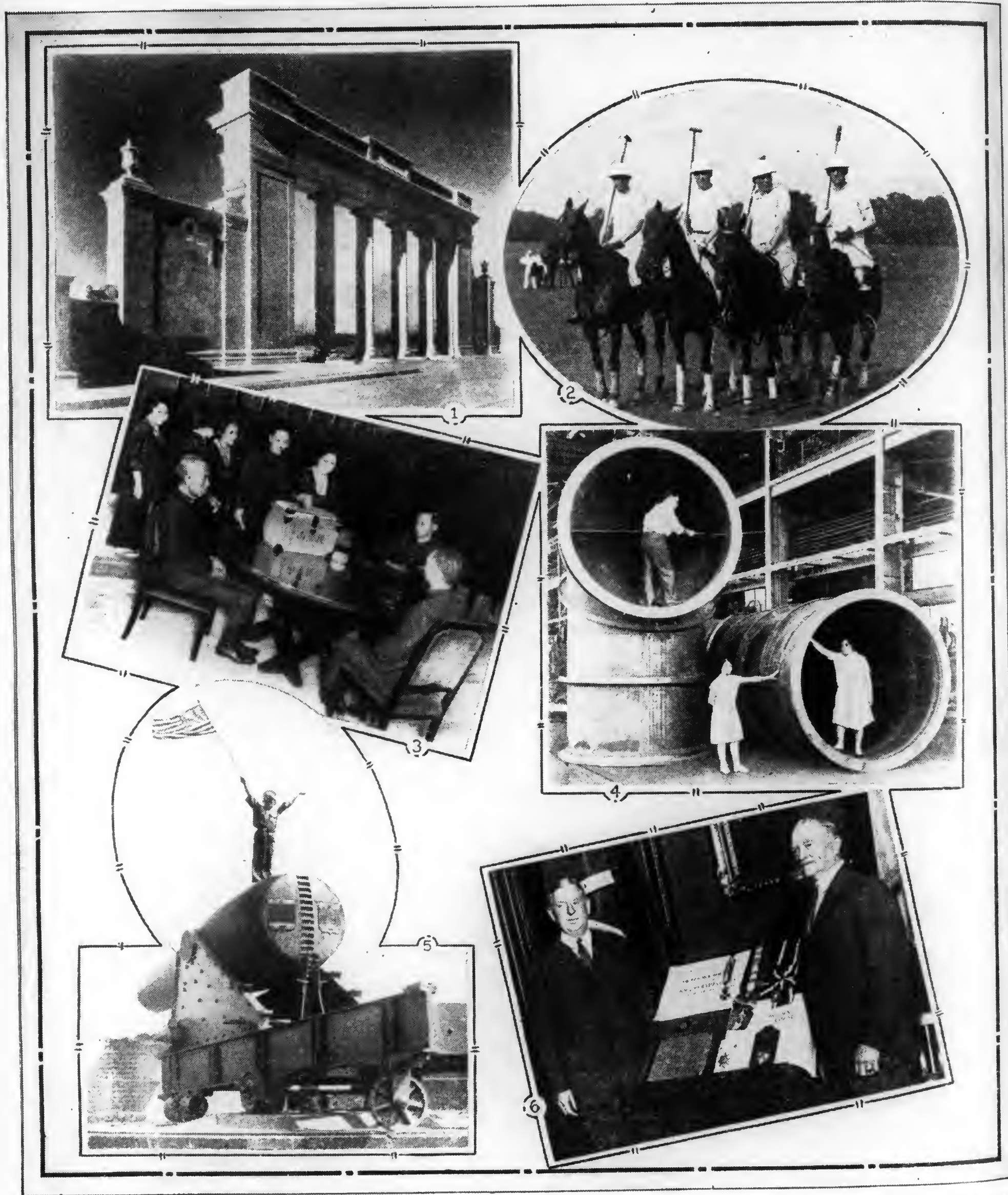
MRS. M. C. S.

Canned Beets

Cook beets until skins will come off easily. Then fill quart jars, add one teaspoonful salt to the quart, fill with hot water and sterilize one and one-half hours. Remove from canner and seal.

MRS. ANDY TENNANT.

EVENTS CAUGHT BY THE CAMERA



1. The Walter Camp Memorial recently completed at Yale University will be dedicated this fall to "The Father of American Football," the player, coach and writer who selected the first "All American eleven."
2. The Big Four, the American team which played against the Argentine team in the International Polo Matches.
3. Votes for women in Japan! Mr. Ogawa, Min-

ister of the Imperial Railroad, helped the cause by giving women employees equal rights with men.

4. Sections of the world's largest steam pipe just completed in Philadelphia. They were rolled flat, curved and the edges joined by arc welding.

5. "Over the land of the free!" This is an old 14-inch cannon at Fort McHenry, near Baltimore, which has been re-dedicated as a national shrine.

Here the Star Spangled Banner was written during the British bombardment 114 years ago.

6. General Pershing was 68 on September 13th. Here Secretary of War Davis is giving him birthday gifts—decorations awarded him by foreign governments. They have been held by the State Department until Congress passed special legislation permitting the former A. E. F. commander to accept them.

(Copyright by Underwood & Underwood)

October 6, 1928

PENNSYLVANIA FARMER

(95) 31

Farm Conditions

Adams Co., S. W. Penn'a

Sept. 18: The weather during the past two weeks has been hot and dry and the corn crop is maturing fine. The last two years there was much loss due to conditions at husking time. Some fields being cut now. Many farmers took advantage of the smut treatment for seed wheat and wheat is being sown in good condition. Soybean hay mostly made, with heavy yields. The big peach crop has been moved. Some loss from rot and hot weather, but prices were satisfactory. The early fall apples are being harvested at fair prices. The annual South Mountain Fair was held last week with increased exhibits and attendance. This fair is strictly for education in all farm lines, with no horse racing or gambling devices on the ground. It is gratifying to our merchants and farmers who give their time and efforts to the up-building of our community. A. R.

Berks Co., S. E. Penn'a

Sept. 15: For some time weather conditions were very favorable for farm work. Plowing is all done and most of the fields are in a suitable condition for fall seeding. Corn seems to mature under favorable conditions. Had no storm damage and all indications point to a good crop. Digging of potatoes has been started at some places. Prices are too low at present and most of the potatoes will be stored awaiting higher prices. Apples are very scarce and very little cider is being made. The Gauges of the county bought fertilizers on a cooperative basis. Local prices: Wheat \$1.30, rye \$1.20, oats 85c, potatoes \$1, eggs 35c, butter 65c. W. N. M.

Berks Co., S. E. Penn'a

Sept. 21: A cold, heavy rainfall proved a disturbing factor for the various county fairs held this week. The Reading Fair held last week was fortunate and realized genuine "fair weather," and a net profit of about \$50,000. With good weather, the York County Fair to be held in the first week of October will prove another great success. Good public roads and agricultural prosperity lead to the better county agricultural fairs. The fall work on farms is already in full swing. The normal average of wheat will be sown. Some of the old red varieties, although still desirable, are giving way to newly introduced kinds. Less rye will be sown. Oliver D. Schock.

Franklin Co., N. W. Penn'a

Sept. 19: The fall plowing now is practically all done. Silo filling is in progress now. Threshing is still in progress but is nearing an end. Reports show a fine crop of potatoes and late ones look good. The caterpillars are on the fruit trees in great numbers and eating the leaves. Prices are: Wheat \$1.25, corn \$1.05, eggs 35c, potatoes 50c, land 1c, peaches \$1.02 bu., butter 35c. Flour is selling for \$8.50 bbl. J. B. Shank.

Greene Co., S. W. Penn'a

Sept. 15: Autumn again with its bright-hued forest and woodland. The leaves of the forest are just beginning to fade. Threshing done, a fairly good yield of grain. Cattle, sheep and hogs a good price. Wool a slow sale at 40c. Land not in much demand on account of too high a tax. Mines not working full time. Average crop good corn. Potatoes reported good in some places, very poor in others. Plenty of hay and pasture. Not a sufficient number of livestock on the farms to consume the latter. Fruit only a small part of a crop. The new railroad between Mathers and Waynesburg is progressing rapidly, with about 225 men on the job. Little butter made on the farms. S. B. Fordyce.

Huron Co., Northern Ohio

Sept. 17: Cool and northwest gusty wind with no indications of rain. Many farmers are through plowing for wheat and have the ground rolled and are now waiting for rain, of which there is not the least prospect. A similar drought came in 1897. Some farmers got their ground fitted and sowed theirs at about the usual time with no moisture in sight. Others said, "No use, it won't grow anyhow till it rains. We'll wait." The rain didn't come till November 5th. So it made no difference what time the wheat was sown, it all came up at about the same time and a fair crop was the result. Some plowed and sowed after the rain and raised a good crop. E. P. Snyder.

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TRAPPERS

What would it be worth to you to know which Fur House really pays the best prices? Think what it would mean to get 15% to 20% more money for your furs this season.

The American Trapper's Magazine is just closing a winning contest among professional trappers and fur shippers throughout the country, and will reveal in their October issue the name of the Fur House who paid the highest prices, the name of the Fur House who paid second highest prices, third, etc. If you have furs to ship, you, too, will want to know which House pays the most. We want every trapper and shipper to have the October issue of our magazine, containing this valuable information, and many other articles of great interest to the trapper. Send name at once with the partly covered mailing cost and magazine will be sent to you. Write.

AMERICAN TRAPPER'S MAGAZINE
Dept. 1, Plymouth, California.

FOR SALE: 150-acre Poultry and Dairy Farm. All level, high productive soil. 2 sets good buildings. Most successful owner. Poultry, 100,000 birds alone pay for farm in four years. Price \$75 per acre. Easy terms. Full particulars. Write owner. WM. SEIDEL, Washingtonville, Pa.

Button Rupture
Newest Way
[Without Pressure]

Science now advises against the use of steel springs, barbarous leg straps, and other harnesses that press against the rupture and thus prevent nature from healing it. A new sensible method has been perfected, after thousands of test cases, called Magic Dot—entirely different from any other way. Instead of "pressing," it "seals" rupture, and of course allows users to run, jump, bend and cough in perfect safety.

Breathes Air

With this 1-2-3-4 device is a new kind of pad, air-tight and washable. It actually breathes for you and causes no slip of the rupture. A feature you'll frankly admit, that is lacking in your present appliance. In fact it is so superior and different that it is valued by physicians as "an entirely new departure." Even if you have long-term rupture, they are wearing it. But don't buy it yet.

See It First

By a special arrangement, you can now have it sent to your home without obligation to wear it. Don't send a penny. After it has been sent, for full description of Magic Dot and details of the "no-pressure" operation, "hear" of this ad now and write today for quick relief.

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When writing advertisers say you saw their ad in PENNSYLVANIA FARMER.

Corn Borer Conference

EXPRESSIONS unfavorable to Federal appropriations for compulsory clean-up campaigns in the control of the European corn borer met with opposition at the closing conference of the annual meeting of the International Corn-Borer Committee held at Toledo, September 27 and 28. While no resolutions were adopted urging Federal appropriations for compensation in clean-up work, the group went on record as favoring the continuance of voluntary and compulsory clean-up work, and expressed an appeal to farmers, state and federal governments for united support. The corn-borer menace is recognized as just as serious a problem as it was two or three years ago, and thorough clean-up methods still offer the best present known means of control.

Spread of Infestation

The southward spread of the insect this year has not been as great as in preceding years. This spread has not exceeded the width of more than one county in either Ohio or Indiana, but in the latter state the borer infestation is within two counties of the Illinois line. Careful scouting has not revealed isolated outbreaks in territory farther west, nor has scouting along streams, leading out of infested territory, resulted in the discovery of isolated establishment of the pest. Both Michigan and Ohio show slight increases in infestation. The spread in the infested area has become more general, and the entomologists look for serious destruction in these areas next year, if weather conditions are favorable at egg-laying time, and if farmers have not followed good clean-up methods with this year's corn crop. Corn acreage has increased this year in Essex and Kent counties, Ontario, and but little commercial damage is apparent, due to the negligible corn acreage there last year, and coupled with very satisfactory clean-up methods of this reduced acreage.

The scientific workers and control officials of both Canada and the United States, well up to 200 in numbers, spent most of the two days in a tour of inspection and study of the research work being conducted by both state and federal governments in Ohio at Bump and Toledo, and at Monroe, Michigan. Following Lucas county, representative of borer infestation this year in that area, a good part of the first day was spent at the Government Development and Test Farm of 300 acres located near Toledo. Of particular interest was the preliminary tests made by covering an acre of corn with a copper wire covered frame work, to determine the effect of thorough clean-up measures. Counts made on this plot last fall showed a borer population of 2,770 borers. Counts this fall, on the corn grown under the screened cover showed that a reduction of 97 per cent had been obtained in the borer population. These tests will be continued next year over a much larger area, and enlarged to include different clean-up methods and other factors applying to farm practice.

Machinery Developments

Outstanding progress has been made in the development of low-cutting attachments for corn harvesters. Those proving most satisfactory were demonstrated to the visitors on the test farm. The recent development of a stationary knife device, the agricultural engineers say, practically solves the problem of low-cutting attachments, and can be used on most types of soil, including both pebbly and sandy types. Other demonstrations conducted during the day included the operation of plows, stubble pulverizers, improved side-delivery rakes for cleaning up crop debris, sled type stalk shavers, and oil burners. Corn breeding work and other research problems being conducted by the Ohio Experiment Station at Wooster, were inspected and studied following the visit to the Government Development Farm. The Ohio workers have discarded the standard corn varieties of the state from experimental work as none of them have been

found to have all the requirements desired under corn-borer conditions. They are now directing their efforts towards some promising crosses developed from inbred strains, and reported that they are encouraged to believe that a hybrid can be produced which will mature after slightly delayed planting, yield higher than present standard varieties, and have stalk characteristics which will be stiff enough to stand up well under moderate borer attack.

Work with parasites continues to show progress and most of those being developed and liberated in infested areas have been recovered.

States from New England to Colorado were represented at the conference. Dean C. F. Curtis, chairman of the International Committee, presided over the deliberations of the conference. Those participating in the discussions were Dr. C. L. Marlott, Chief of the Bureau of Entomology, U. S. Department of Agriculture;



AYRSHIRE WINS IN BUTTERFAT CONTEST

Evelyn Clarice, a registered Ayrshire cow owned by H. O. Craner, Onondaga, N. Y., won the Alaska State Fair, according to the New York State Fair, superintendent of this contest. Evelyn Clarice is a granddaughter of Kate's Champion of Peshurath, the leading Advanced Registry sire of the Ayrshire breed, while her sire is Peshurath Bloomer Fico. She is four years of age and finished her three days' work in the contest with an average test of 5.92 per cent.

AYRSHIRE BREEDERS' ASSOCIATION.

Dean J. H. Skinner of Purdue University, and Dean Leland Call, Kansas Agricultural College, L. H. Worthley, in charge of European corn-borer quarantine work for the federal government, planned and directed the two days' tour.

N. E. SHAW.

MILK DISTRIBUTORS CONSOLIDATE

Announcement was made on September 20th of the consolidation of four dairy products distributing companies doing business in the Pittsburgh district. The new concern is known as the Liberty Dairy Products Corporation. The following companies entered into this consolidation:

Ashtabula Co., N. E. Ohio

Sept. 21: Usual equinoctial storm has come and gone, with a 40-mile gale and 1½ inches of rain. No damage as our sister states have had. Our sympathy goes out to the stricken districts that were caught in the howling winds and floods. Our county has responded freely to help for the Red Cross to help Florida and other states. Wheat all sown. Corn cutting under way.

L. W. Lee.

Lawrence Co., Western Penn'a

Sept. 24: Weather cool and dry. Wheat seeding mostly done. Threshers busy, oats yielding good. On low damp ground the straw is very weedy and unfit for sale. In parts of county where the soil is sandy and dry a splendid potato yield is reported, while in other locations a failure. Soy-

beans, Ohio and Pittsburgh Milk Company (trading as Hermes-Groves Dairy Company), Shadyside Milk Company, Reinhold Ice and Ice Cream Company, Kittanning Pure Milk Company.

The business of the new corporation includes the wholesale and retail distribution of milk and cream and manufactured dairy products, ice cream, butter, butter-milk, cheese and other products. As a result of the consolidation the companies affected look forward to many economies in operation and the elimination of considerable duplication in their retail milk routes, etc.

SALE OF IMPORTED MILKING SHORTHORNS

At the Eastern States Exposition, Springfield, Mass., September 19, 1923, fifteen lots of imported Milking Shorthorns, which included five young calves, averaged \$633. Fifteen head, including four calves with their dams, averaged \$863. As has been previously reported, the eighteen lots in the earlier shipment sold August 11, 1923, at Chicago, averaged \$650.

Twenty-six lots of Milking Shorthorns.

general outlook is for a low yield and only a fair price. Nearly every one lined wheat fields, which will help secure clover catch next year. This year's seedling looks splendid. Eggs 35c, chickens 20¢ to 25¢, oats 50¢, wheat \$1.40, shelled corn \$1.30. Fresh corn scarce and high in price. At a recent sale of grades the first five brought over \$600. Stoneboro and Mercer fairs both had good weather, with splendid livestock and agricultural exhibits. Attendance probably a trifle light. Many Mercer county exhibitors at New Castle fair this week.

M. G. E.

Cumberland Co., Southern Penn'a

Sept. 20: Have had the equinoctial storm with high winds tossing the corn, blowing down apples and pears badly. Pears, peaches and grapes are plentiful. Apples are not a half crop. No seeding for wheat done yet. Farmers waiting till first of October on account of the fly. Threshing about done. We are having very much wet and cool weather for this time of year. Nearly frost a couple of nights. Some corn is cut. J. B. Kelley.

Somerset Co., S. W. Penn'a

Sept. 19: We are getting a much-needed rain after a very dry season. Wells and streams were getting dry. Silo filling was in full swing. No frosts yet, but look for it now after the rain. Not many potatoes dug, but crop looks good. Schools opened September 3 with a good attendance. Threshing not all done. Oats not husking very good. County fairs well attended with good exhibits. Prices about the same.

Mrs. H. W. Brant.

Greene Co., S. W. Penn'a

Sept. 20: We are having a few days of cool, wet weather. Has been very dry for past few weeks. Threshing about all done. Oats and wheat a fair yield. Oats selling at 50¢ to 75¢ at machine. Probably a little larger acreage will be sown to wheat this year. Plowing nearly all done. Farmers waiting for cooler weather before sowing wheat. Corn ripening slow. Crop is above the average for this region. Potato crop very good. Plenty of peaches and plums. Very good apples. Eggs 35¢, but 40¢.

C. M. E.

Centre Co., Central Penn'a

Sept. 21: There was a much-needed rain yesterday. Those who have not already filled their silos are busy at it. The fall seeding of wheat has been delayed on account of the Hessian fly, which did so much damage to last year's wheat. The peach crop is about over for this year. Over 400 bushels were sold from one orchard, near Unionville, on last Monday. This has been a busy season for the housekeepers. The schools over the county have all opened since Labor Day. Market quotations: Wheat \$1.35, rye \$1.10, corn \$1.10, barley 80¢, buckwheat 90¢, oats 40¢, eggs 40¢, butter 45¢.

A. A.

Lancaster Co., S. E. Penn'a

Sept. 20: It is reported that at least 60 per cent of the tobacco crop is now safely housed. In general the crop is good and should bring a good price. Quite a severe storm passed through the county September 19 and did quite a lot of damage. Corn is badly blown down and fruit was blown from the trees. The apple crop will not be very large. Potatoes are a bumper crop and bringing 50¢. The growers have put a great expense in the growing of the present potato crop and at 50¢ per bushel they will not realize a very large profit from their investment. Eggs 43¢, butter 40¢, wheat \$1.25, hay \$11 ton.

R. C. R.

Lebanon and Berks Cos., S. E. Penn'a

Sept. 24: Snot was had here this year. The Reading Railway Company ran a snot train through the district September 15th. The wheat cleaned taxed the capacity of the train at all points. We have had the wheat blown down and must be reseeded or it will rot. Third crop of alfalfa being made. Getting fields ready for sowing wheat greatly impeded by wet weather. County Agent Berger has set September 26 as first safe date for wheat sowing to safeguard against the Hessian fly. Early sowers draw the fly to their own fields and also their neighbors who sow late. Potato digging is being resumed again. About all digging is being before storm broke. Tobacco was away before storm broke. To have a heavy crop. Corn not as heavy as thought it would be. Work fairly quiet and health very good. Threshing not filling in full blast. Few farms have sufficient corn to fill silo full. Corn fields very weedy. Very few pieces of well-cared field corn. Potato digging not yet started. The

Farm Notes

beans are being harvested. Corn cutting is being rushed with an average crop expected. Second crop of clover now being harvested. An abundance of peaches, pears and plums. Last year's hens bring from 25¢ to 30¢ per lb. live weight; fresh eggs 45¢ to 50¢, butter 50¢ to 55¢.

M. L. V.

Mercer Co., N. W. Penn'a

Sept. 24: Wonderful fall weather for September, warm and a few slow showers that helped make a fine seed bed for wheat, which is nearly all sown. Have had several light frosts which did no harm. Few fields of oats made 40 bushels to the acre. Many less than 30 bushels. Silo filling in full blast. Few farms have sufficient corn to fill silo full. Corn fields very weedy. Very few pieces of well-cared field corn. Potato digging not yet started. The

Farmer's Business Letter

The Break in Hogs

THE hog market is \$1.50 to \$1.75 under last week's close, and \$2.30 to \$2.40 lower than on Monday last week. It is said that it will be termed a sensational break, being one of the largest on record within such a short time and entirely unexpected. Last year the usual fall break came during the closing days of October. This year it was not expected earlier, and later. Those in the trade have been guessing whether it was a fall decline, whether prices had sagged to rest more or less permanently at a lower level; or whether perhaps it might be something of a break, to be followed by a sharp upward movement early in October. At this writing the former opinion prevails; it is said that a real fall break. Of course, the "tablets" may be wrong about that. Prices may turn about and move upward during the next two weeks, but not even the most optimistic expects to see \$13 paid for hogs again this fall, or anything like that figure.

Where did the hogs come from, or rather why did they come suddenly in such numbers? Receipts at the eleven leading markets this week total about 470,000, largest for the week with only five exceptions during the past twenty years, and larger by 30,000 than the same week of 1924, the year of the all-time record hog run. And all reports had agreed that there were fewer hogs in the country this year than even last year.

The deluge of hogs included a very large proportion of one kind—light, young hogs. Nor was it confined to any one part of the country, eastern points having liberal receipts, with a consequent cutting down of prices usually placed on western markets, this in turn giving packer buyers control of the situation so they could put the price pretty much where they pleased. It is certain that in some sections disease (fever and other sickness) sent a lot of immature porkers to market, but that could hardly account for the liberal marketing over the country, it would seem, though it did. At any rate the hogs came and the market went to pieces, to steady and strengthen at the close of the week with the feeling that the low point has been reached or the time being passed.

There was practically no change in the wheat market this week, with light trade and only moderate daily fluctuations. Canada's crop of 550,000,000 bushels leaves

just at this time, but the run for the season to date is only a little over half as large as at the same time two years ago. Demand for stockers and feeders has picked up some this week, with Indiana and Illinois feeders the big buyers. Trade has been somewhat hesitant on account of the decline in the fat-cattle market. But stockers and feeders are some lower, too, especially on the top end. Some prices looked to be \$1.50 below the high time two weeks ago. The planner, lighter kinds showed a decline ranging from 50¢ to \$1.25 compared to the high time. A range of \$11 to \$12 will catch the bulk of what would be called fair to good feeders at this time.

Lambs Lower

Sheep and lambs closed the week about a quarter lower than last week. Top westerns were quoted at \$14.25, natives at \$14, and top feeders \$14, though \$13.50 was taking some excellent feeder lambs.

The feeder trade picked up during the latter part of the week, following a very dull time. Michigan, Illinois, Indiana and Wisconsin are the big buyers of feeders here, in the order named. Feeding in Corn-Belt states will be heavy this season, as feed and lambs are both in liberal supply. Eastern lambs that are carried through the winter will avoid much of this competition.

Idaho, Washington, Montana, Colorado and Wyoming are the big shippers of lambs at this time, in the order named.

September receipts of sheep and lambs at Chicago, at 477,000, compares with 412,600 during the month last year, and a five-year average of 575,000 for the month.

Quiet Grain Trade

There was practically no change in the wheat market this week, with light trade and only moderate daily fluctuations. Canada's crop of 550,000,000 bushels leaves

Veterinary

Conducted by DR. H. H. HAVNER

Cow Is Nervous

"A. B.—Will you kindly advise me through the columns of your valued paper in regard to a grade cow that seems very nervous at times, especially during the warm weather when giving a good quantity of milk? She sometimes bawls and appears unsatisfied, but is not a bad kicker. She craves something like buttermilk or whey, something sour, and is as eager for that as a pig."

Answer: Of course you are well aware that some cows are exceedingly nervous and restless during the heat period and I might add that this nervousness may last for several days. Also in cows with a sensitive, nervous temperament they are apt to show periods of nervousness and excitement independent of heat period. Feed a little grain at milking time and give a tablespoonful or two of steamed bone meal with the grain. Would also give two tablespoonfuls of the following mixture: Glauber salts one pound, soda one-half pound, powdered gentian two ounces, powdered nuxvomica two ounces.

Horses Have Cough

"D. C.—My horses have a cough. I turned them out last spring and they took a cough. They can hardly get their wind when I work them."

Answer: I would be inclined to believe that the original start of the trouble was an attack of influenza, the effect of which particularly the cough, having not yet worn off. To allay the cough and aid in head discharge give a full tablespoonful two or three times a day of the following mixture. Sneeze the dose on teeth or tongue by means of a wooden paddle or a large spoon: Powdered licorice root five ounces, ammonium chloride two ounces, fluid extract belladonna one and one-half ounces. Simple syrup sufficient to make thick.

Blind Spavin

"E. D. K.—I have a horse that is apparently sound except in his back legs, where he is lame. There are no swellings and I can't find a place that seems to be sore. For a while he will walk all right until he goes up a hill or steps a certain way."

Answer: The symptoms you describe indicate rather strongly the presence of a blind or hidden spavin. A good stiff blister can be applied to the hock and the

425,000,000 bushels for export, and that fact coupled with a rather liberal surplus available in this country stands in the way of any bullish movement in wheat prices. Prof. R. M. Green, of the Kansas State College, points out that since 1920 there has been a general drift downward in wheat prices for 57 months as against general trends upward during 36 months. "There seems little doubt," he says, "that the longer time outlook for the Kansas wheat industry is characterized by a situation in which it will be easier in the next few years to break prices than to raise them." This conclusion is based on a study of production on lands cheaper than those available in the United States.

Cash corn as well as December and March futures showed a slight gain this week, though it was felt that there was practically no damage from the heavy frosts early in the week, the crop being matured nearly everywhere. Some buying of corn for export during the week helped the market. Oats gained a little with corn, but trade in both cereals is very light.

Here and There

Corn-Belt farm papers are carrying Democratic paid advertising, the campaign being in charge of Geo. N. Peck, of McNary-Haugen fame.

In Wisconsin shots brought 15 cents a pound in farm auction. An Iowa farm trade is reported in which one place, exceptionally well improved, was valued at \$325 an acre, the other at \$175.

The population of the United States is nearly double what it was in 1890. The number of cattle in the country this year shows an increase of only about eight per cent above 1890. In 1890 top cattle sold at \$6.40; this year at \$18.

In the auction of club calves this week 37 head averaged \$18.06. The top calf sold at \$20 to the C. & N. W. R. R. dining car service.

WATSON.

Chicago, September 29, 1923.

40 HEREFORD CATTLE 40

To Be Sold at Public Auction on Thursday, Oct. 18th

at the Clarksburg Fair Ground, consisting of Cows with calves at foot. Cows bred and safe in calf. Heifers, bred and open. Bull of registered breeding age. This offering of registered Herefords will be drawn from the oldest and most reliable herds of West Virginia and owned by breeders who have spent their lives in the breeding business. This offering will also have the guarantee of quality and fully guaranteed as represented. Write for catalog after Oct. 1st.

COL. C. I. POWELL, Auctioneer.

P. C. GREENE, Sec'y & Sales Mgr.

Kenna, West Virginia

To know what to buy—read the advertisements. They will keep you informed of the latest and best products of the manufacturers. Their aim is to meet your needs. You will find that time spent in reading the advertisements is time well spent. Read them regularly, with care, and when answering, mention PENNSYLVANIA FARMER

INTERNATIONAL PAPER COMPANY

New York, September 26th, 1923. The Board of Directors have declared a quarterly dividend of sixty (60) cents a share, on the common stock of this company, payable November 15th, 1923, to Common Stockholders of record, at the close of business November 1st, 1923.

(Checks to be mailed. Transfer books will not close.)

OWEN SHEPHERD, Vice-Pres. & Treas.

WE PAY \$18 A WEEK, furnish auto and expenses to introduce our Soap and Washing Powder, to Beach Co., Dept. A84, Chippewa Falls, Wis.

CATTLE

If You Want Angus, help us to figure, write us, Pure-bred cattle always for sale. BAYARD BROS., Waynesboro, Pa.

BEECHWOOD SHORTHORNS

BULL CALVES of Merit at Admirable Prices. C. C. LEWIS, Point Pleasant, W. Va.

D. S. POLLED HEREFORDS—A fine selection. Cows, heifers, bulls. Come and see. CHAS. D. GILL, Millersport, Ohio.

Crawford County Milking Shorthorn Club Sale. Wednesday, Oct. 10th, 1923, at C. C. WAGNER FARM, Westford, Pa. 20 cows and heifers, 3 bulls. Write for catalog.

BUICK & DOE RUN VALLEY FARMS. Herford cattle, Poland-China hogs, Durhamshire Shorthorn, Draft Horses. THE SAINT AMOUR COMPANY, Mortonsville, Penna.

Polled Herefords. Bulls, heifers, real quality. Polled Herefords, purebred stock, Percheron horses, Poland-China pigs, both sexes. Daniel Shoop, High Cayner, Waynesboro, Va.

THIS HIGH POWERED EGG GETS MORE EGGS

"Continued large egg yield and good condition of flock" makes W. A. Churchill, Wrightstown, N. J., a Beacon Egg Mash booster. "Wherever tested with other feeds, Beacon sales increase afterward," writes Jamesbury (N. J.) Coal & Feed Co.

Beacon is a high powered Egg Mash—21% Animal protein, palatable, pure soluble minerals, Baker's grade milk only, Pecos Valley (Irrigated) Alfalfa Leaf Meal—NO GREEN FEED NEEDED—no production slumps. Clean, honest nutritive feeds—remarkable digestant Protosyn insure utmost assimilation—uniform consistent long-time high production without loss of weight or vitality, body building without forcing.

BEACON MILLING CO., Inc., CAYUGA, N. Y.

Love is Death

LOVE AT FIRST SMELL—

Rats love it better than food. Turns them into harmless and odorless mummies. Easily and quickly used. Rid yourself of destructive pests. If your dealer hasn't COMMON SENSE EXTERMINATOR write us direct.

Common Sense Mfg. Co.,
P. F. 8, Buffalo, N. Y.

Livestock Markets

PITTSBURGH

Cattle

Monday's receipts were about 66 carloads. Slaughterers were apparently not in need of many cattle and their bids were away below recent sales. The market was miserably slow and prices lower all around. The decline amounted to 50¢ to 75¢ per cwt. on bulk of steers, possibly more in some cases. No fed steers such as brought \$15.50 last week were on sale. A few head of nice handy and weighty grassers brought \$13.75, but \$13.25 took the best handy weight grassers and they were good. A few riper and heavier steers, too heavy for most buyers, were held around a dollar higher than these but got no bids up to noon. Very useful steers of 1,100 lbs. or over sold at \$12.25 to \$12.50, and looked much lower considering their condition. Pretty good butcher steers of 1,000 lbs. or over could be had at \$11.50 to \$12 late in the day. Ordinary light steers held up better than the better cattle. A few feeders brought \$9.50 to \$10.75, the latter fair quality and averaging around 825 lbs. A few nice heifers were sold early at \$12.25 to \$12.50, but most heifers were sharply lower and it took good ones to fetch more than \$11.50 later on. Fat cows were lower too, good ones largely \$8.50 to \$9.75. Canners sold all the way from \$5 to \$6, largely \$5.50 to \$6. Bulls showed up along with other cattle, bulk of good butcher kind \$9.50 to \$9.75 and fair class \$9 to \$9.25. The cattle market was the worst of the year and some went over in first hands.

Choice grain-fed steers, 1,200 lbs. or over	None here
Good to choice grassers	\$13.00 to \$13.50
Fair to good, do.	12.25 to 13.00
Plain heavy steers	11.75 to 12.50
Choice heavyweight steers	13.50 to 13.75
Good butcher steers, 1,000 to 1,150 lbs.	12.50 to 13.00
Fair to good, do.	12.00 to 12.50
Ordinary to fair, do.	11.00 to 12.00
Common, do.	10.00 to 11.00
Good light butcher steers	10.00 to 11.00
Fair to good light steers	11.00 to 12.00
Common to medium, do.	10.00 to 11.00
Interior light steers	9.00 to 10.50
Feeders	9.00 to 11.50
Stockers	Nominal
Good heavy bulls	9.75 to 10.00
Choice handy butcher bulls	9.25 to 9.75
Good handy bulls	8.75 to 9.25
Fair to good bulls	8.00 to 8.75
Common to fair bulls	7.00 to 8.00
Interior bulls	12.00 to 12.25
Choice fat heifers	11.00 to 12.00
Good to choice heifers	10.50 to 11.50
Fair to good heifers	9.50 to 10.50
Thin light heifers	8.00 to 9.00
Choice fat cows	9.25 to 10.00
Good to choice fat cows	8.50 to 9.25
Fair to good cows	7.00 to 8.00
Common to fair cows	5.00 to 6.50
Canners and cutters	5.00 to 6.50
Fresh cows, calf at side	50.00 to 150.00

Hogs

A September slump in hogs is unusual but it occurred last week, with liberal receipts at all points. Monday's receipts were light, only 20 carloads, and there was a slight recovery from the low point. Prices were 25¢ to 50¢ better than at last week's close. Heavy weights ranged from \$11 to \$11.50, the inside figure for extreme weights. Heavy mixed, mediums and heavy Yorkers all sold on about the same basis, \$11.50 to \$11.60. Good light Yorkers went at \$11 and good pigs at \$10.50, green and undesirable stuff of either class on a lower basis. Sows brought \$10.00 to \$10.25, selling well as compared with extreme heavy hogs.

Heavy wts., 250 lbs. or over	\$11.00 to \$11.50
Heavy mixed	11.50 to 11.60
Medium wts., 180-250 lbs.	11.50 to 11.60
Heavy Yorkers, 165-180 lbs.	11.50 to 11.60
Light Yorkers, 125-150 lbs.	10.50 to 11.00
Pigs, 100-110 lbs.	9.50 to 10.50
Roughs	9.00 to 10.50
Stags	6.00 to 7.50

Sheep

Monday's receipts were about 18 carloads, and probably one-fourth of them consisted of sheep. Good handy wethers were 15¢ to 25¢ lower, other classes showing a larger difference. Good to best wethers went on orders at \$8 to \$8.35. Good fat lambs were a quarter or so lower than at last week's close, other grades 25¢ to 50¢ lower. A few bunches of handy-weight lambs brought \$14, bulk of good ones in a whole sale way \$13.50 to \$13.75. Culls sold largely

at \$8 to \$10.50, a few heavy lambs thrown out on account of weight at \$12 to \$12.50.

Sheep and Lambs

Good to best wethers	\$8.00 to 8.35
Fair to good wethers	7.50 to 8.00
Good mixed	7.00 to 7.50
Fair to good, do.	6.00 to 7.00
Common to fair	5.00 to 5.50
Interior sheep	2.00 to 4.50
Good to best spring lambs	13.50 to 13.75
Medium lambs	11.50 to 12.50
Culls and throwouts	7.00 to 10.50

Calves

Monday's receipts were 1,000 head. The market held up in the face of lower prices for all other livestock, cattle, lambs and hogs all showing sharp declines during the week. Best veal calves brought \$19 per cwt., seconds \$14 to \$16 and common \$10 to \$12.50.

CHICAGO

Cattle

Chicago, Oct. 1.—Receipts were 23,000 head. Market a quarter lower.	
Common to fair yearlings	\$11.00 to 12.25
Fair to good yearlings	12.25 to 14.00
Good to choice yearlings	14.00 to 16.00
Choice to prime yearlings	16.00 to 18.25
Common to fair steers	11.00 to 13.00
Fair to good steers	13.00 to 14.00
Good to choice steers	14.00 to 16.00
Choice to prime steers	16.00 to 18.00
Common to good cows	9.50 to 11.50
Good to prime cows	9.50 to 11.50
Heifers, common to good	7.50 to 11.25
Heifers, good to prime	11.25 to 15.75
Canners and cutters	5.50 to 7.25
Interior light bulls	7.50 to 8.00
Bologna bulls	8.00 to 9.40
Fair to choice butcher bulls	9.50 to 11.00
Stockers, common to fair	9.00 to 10.25
Stockers, fair to choice	10.25 to 11.00
Stockers, good to choice	11.00 to 12.00
Fancy yearling stockers	12.00 to 13.50
Stock and feeder heifers, common to choice	7.50 to 10.50
Stock and feeder cows	7.50 to 8.25
Feeders, common to fair	9.50 to 11.00
Feeders, fair to good	9.50 to 11.00
Feeders, good to choice	12.00 to 13.50
Fancy selected feeders	13.50 to 14.50
Milkers and springers	9.00 to 12.00
Common to best vealers	14.00 to 17.00

Hogs

Thirty thousand hogs were on sale. Market steady to 2¢ higher.	
Heavy butchers, 270 lbs. up	\$10.60 to 11.10
Selected, 190 to 245 lbs.	10.00 to 11.25
Light, 160 to 225 lbs.	10.00 to 11.25
Medium, 225 to 265 lbs.	10.00 to 11.25
Heavy packing, 270 to 350 lbs.	9.50 to 10.50
Mixed, 350 to 500 lbs.	9.00 to 9.80
Stags, subject 70 lbs. dockage	9.25 to 10.35
Pigs, inferior to best	9.00 to 10.50

Sheep

With 49,000 sheep and lambs on sale the market was 25¢ lower.	
Wethers, all ages	\$8.75 to 9.25
Woolheads	4.25 to 7.00
Western ewes	6.50 to 7.00
Western range lambs	13.75 to 14.50
Native lambs	8.00 to 13.00
Feeding lambs	12.75 to 13.75

Stock Movement

Cattle	Hogs	Sheep
Receipts for week	54,473	115,734
Previous week	65,073	92,136
Same week last year	58,132	97,743
Shipments for week	17,590	18,100
Previous week	19,185	15,993
Same week last year	17,213	31,261

LANCASTER

Cattle

Lancaster, Oct. 1.—Today's market was slow and weak on beef steers and all other slaughter cattle. Top of \$13.75 was obtained on steers averaging 1,225 lbs.	
Good steers	\$13.50 to 14.25
Medium to good	12.00 to 13.50
Common to medium	9.50 to 12.00
Good to choice bulls	9.75 to 12.00
Common to medium	7.00 to 9.50
Choice hinds	12.00 to 13.25
Good to choice	10.00 to 12.00
Common to medium	7.50 to 10.00
Good to choice cows	9.00 to 11.00
Common to medium	6.25 to 9.00
Canners and cutters	4.00 to 6.25
Common to choice stockers and feeders, 800 lbs. or over	9.25 to 13.25
Common to choice stockers and feeders, 600 lbs. down	8.75 to 13.50
Good to choice calves	15.00 to 18.50

Medium	14.00 to 16.00
Common	7.00 to 13.50

Hogs

Heavy wts., 250-350 lbs.	\$11.00 to 12.00
Medium wts., 200-250 lbs.	12.00 to 12.50
Light wts., 160-200 lbs.	12.00 to 12.50
Roughs	8.00 to 10.00

GLIMPSES OF THE FARM MARKETS

Summary.—Many of the market changes during the last half of September were in favor of producers. Grain and cotton, which had been the weak features early in the month, both made some recoveries based on crop news and export demand. Livestock and the animal products were not doing quite so well as before, but they showed no great weakness, underlying conditions being mostly favorable. Potato markets are unsettled by increasing shipments. Fruit is in liberal supply, but selling well.

Butter.—Supplies of butter have been ample to meet the light requirements of the buyers and in some sections sizable accumulations were reported. Very few receivers were willing to shade prices in order to move these accumulations and a part of this surplus was stored. Under the influence of indifferent demand and lack of confidence on the part of nearly all operators, the market, although prices remained unchanged, was very quiet and inclined to give way a little.

Cheese.—Prices of cheese have shown little change and remain somewhat below the level last year at this time. For a large part of this year, prices have been well above 1927, but recent developments in increased production compared with a year ago and a tendency for receipts to accumulate through decreased demand has prevented the normal seasonal advance.

Eggs.—Fresh egg receipts continue to arrive in quantities larger than a year ago, but the percentage of fancy quality is not large, and the market for this type of goods holds its prices well. The general egg market shows little change.

Poultry.—Live poultry markets have been more active and prices have been well sustained. In general, however, live poultry markets have not been as active this year as last, although receipts are increasing.

Potatoes.—Shipments of potatoes from New Jersey and Long Island have decreased sharply, as 75 per cent of the Jersey crop has been marketed. Prices advanced five and ten cents. New Jersey shippers were getting about \$1.05 per 100 lbs. in Wisconsin and Minnesota producing sections a range of 75 to 85 cents was reported.

Onions.—Leading consuming centers of the eastern and mid-western yellow onions at \$2.75 to \$4 per sack, whites at \$3.25 to \$4, and Iowa Red Globes at \$2.75 to \$3.50. Much of the commercial crop has passed out of the hands of producers.

Grapes.—Grape shipments, mostly from California, have decreased nearly one-third, compared with a year ago, when the weekly total was 10,000 cars. New York and Pennsylvania blue varieties, in two-quart baskets, were jobbed in a limited way at 12 to 20 cents.

Apples.—Exports of apples this season are about 50 per cent greater than to mid-September, 1927. Best grades of standard varieties of eastern and northern apples were quoted in domestic markets at \$1.25 to \$1.75 per bushel or around \$5 per barrel on an E. O. B. basis.

Pears.—The price of pears in consuming centers tended upward, mostly \$1.75 to \$2.75 per bushel basket. Export demand is active.

Grain.—Prices of practically all grains advanced after the middle of September, influenced by relatively light holding sales of spring wheat, despite the heavy market movement, particularly in Canada, but the market continued irregular, weak and very unsettled. The preceding rise was helped along by a good demand for feeding grains. European markets were fairly steady and the movement of new crop grain was getting well under way.

Feeds.—A strong demand developed recently for wheat feeds, especially for standard middlings. Concentrate feed markets have become more active and stronger as the result of an improved demand. Gluten and hominy feed and alfalfa meal markets were steady. Firm hay markets reflected this season's shorter supply and demand was moderate and offerings fairly liberal.

Cattle.—Excepting a few specialties for which close to steady price levels were maintained, the cattle market at Chicago showed irregular declines after about the middle of September on both fed and grass steers. The week's extreme top on fed

steers at Chicago again stood at \$18.50, paid for prime South Dakota bullocks scaling 1,225 pounds, but the market closed lower. The price downturn raced through the list and frequently with even more severity on native steers now selling from \$16.50 downward to \$12.50 or below. Veal calves declined \$1 to \$1.50 with the later trade largely at \$17 to \$18.

Hogs.—Prices of hogs lost from 60 cents to \$1 at Chicago since September 15 to a price break in which underweights, the less desirable grades of light butchers and packing hogs suffered most and choice 20 to 300 pound butchers, the percentage of which decreased, the least. The week's supply carried a generous percentage of hogs of the 1928 crop, these usually scaling downward from 100 pounds. Many of them lacked finish and in that condition were discriminated against severely.

Lambs.—Mid-September found fat lamb values on the lowest levels of the season and \$1.75 to \$2 or more below the high point reached early in the month. Recently a portion of this loss has been regained, supplies of fat lambs being materially curtailed, but the market continues weak and irregular.

Wool.—The recent advance on medium, strictly combing fleeces was maintained, although trading was limited. Clothing 64s territory wools were fairly active. Offerings of 56s, 48s and 36s strictly combing territory wools were limited and prices showed a strengthening tendency.

BOSTON WOOL MARKET

Some trading was done on the Boston market last week at about steady prices, but the market was slow and generally in favor of buyers. The dominating influence in world wool markets is the low prices which are ruling at the London sales of Colonial wool. Last week prices at London were 10s. 6d. to 11s. 0d. compared with the previous week and they now average fully ten per cent under July closing rates. As encouraging feature is the fact that European markets are bare of manufactured goods and it is believed that a basis for business is now established.

The goods market in this country shows some improvement due to more activity in the retail clothing trade. The recent cold snap has been helpful to the movement of clothing.

Recent sales of raw wool at Boston have included half-blood Ohio combing at 3½ with three-eighths and good quarter blood at 55¢. Choice fine staple wools are all rather neglected, although some business is reported in delaine at 4¢.

The Boston Commercial Bulletin quotes wool about steady as follows:

Domestic Ohio and Pennsylvania Fleeces	Delaine, unwashed	47¢ to 48¢
Half-blood combing		50¢ to 51¢
Three-eighths blood combing		54¢ to 55¢
Quarter-blood combing		58¢ to 59¢
Low quarter-blood combing		45¢ to 46¢
Common and braid		40¢ to 41¢
Fine unwashed		41¢ to 42¢
Half-blood clothing		41¢ to 42¢
One-fourth and ¾-blood clothing		40¢ to 41¢

PHILADELPHIA PRODUCE

Philadelphia, Sept. 29.—Receipts of new by string beans were light on the Philadelphia market today and prices advanced sharply under a good demand. Green varieties sold at \$2.65 per bushel and wax at \$1.50 to \$2. Lima beans were firm and sold at \$3.50 to \$4.50 per bushel, according to the Pennsylvania and Federal Bureau of Markets.

The apple market was stronger with Grimes Golden selling at 4¢ to 6¢ per bushel. Smokehouse at 5¢ to 6¢. Delicious at 5¢ to 7¢ and Jonathan at 4¢ to 5¢. Pennsylvania pears were light in supply and sold at \$2 to \$2.25 per bushel. Grapes met a good demand and sold at 35¢ to 55¢ per 12-quart basket.

Cabbage held firm with nearby stock selling at 50¢ to 75¢ per bushel while carlot receipts from New York brought \$10 to \$13 per ton. Pennsylvania kale at 50¢ was dull and brought 5¢ to 10¢ per bushel. Most of the sugar corn offered was of ordinary quality and sold at 3¢ per sack of 100 ears. Better stock brought \$1.50 to \$3.

Egg plant brought 40¢ to 60¢ per bushel, bullseye peppers 15¢ to 25¢, hot peppers 20¢ to 50¢ and tomato peppers 25¢ to 40¢. Mushrooms were weaker at 25¢ to 40¢. Spinach sold at \$1.25 per bushel, kale at 50¢, endive at 40¢ to 60¢ and escarole at 50¢ to 65¢. Nearby rutabagas were strong and sold at 75¢ to \$1 while white turnips brought \$1.25 to \$1.30 per bushel.

The potato market was steady with a

25.00

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BON GRACE SEED POTATOES.—Bussets, Jersey, and other varieties. Green Mountain, Gold Star, and other varieties. Pure stock. Cheap. Write for catalogue. Potato Farm, Richfield, N. Y.

GRITZ SEED RYE, \$1.60 bushel. New crop, mixed. Write to name, Joseph E. Holland, New York, N. Y.

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MISCELLANEOUS

WANT BLOOD HILL when your cow does need a new calf. I have before service, a new born calf, 15 cents for one. \$2.50 for two cows, pastured. Woodstock Farm, Box 40-C, Reston, Washington.

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rather slow demand. Pennsylvania round whites sold at \$1.05 to \$1.75 per 150-pound sack on the carlot market with 120-pound sacks bringing \$1.40 to \$1.50. Nearby New Jersey Cobblers jobbed at \$1 to \$1.25 per 100-pound sack. Fancy sweet potatoes met a fair demand but ordinary stock was draggy. Prices ranged from 50¢ to 75¢ per bushel.

Beets were weaker and sold at 1½¢ to 3¢ per bunch and carrots at 1¢ to 3¢.

MISCELLANEOUS PRODUCE

Pittsburgh

Butter.—Creamery prints, 92 score, 55¢ to 55½¢; tubs, 54¢ to 54½¢; nearby tubs, 50¢ to 51¢.

Poultry.—Heavy hens, 32¢ to 33¢; Leghorns, 28¢ to 29¢; springers, 32¢ to 34¢; roosters, 18¢ to 19¢; ducks, 27¢ to 28¢; geese, 18¢ to 22¢; pigeons, 40¢ to 50¢ per pair.

Eggs.—Fresh, select, 40¢ to 48¢; current receipts, 33¢ to 36¢.

Potatoes.—No. 1 Cobblers, N. J., \$2.10 to 2.15 per 150-lb. sacks; Pa. whites, \$2.10 to 2.15.

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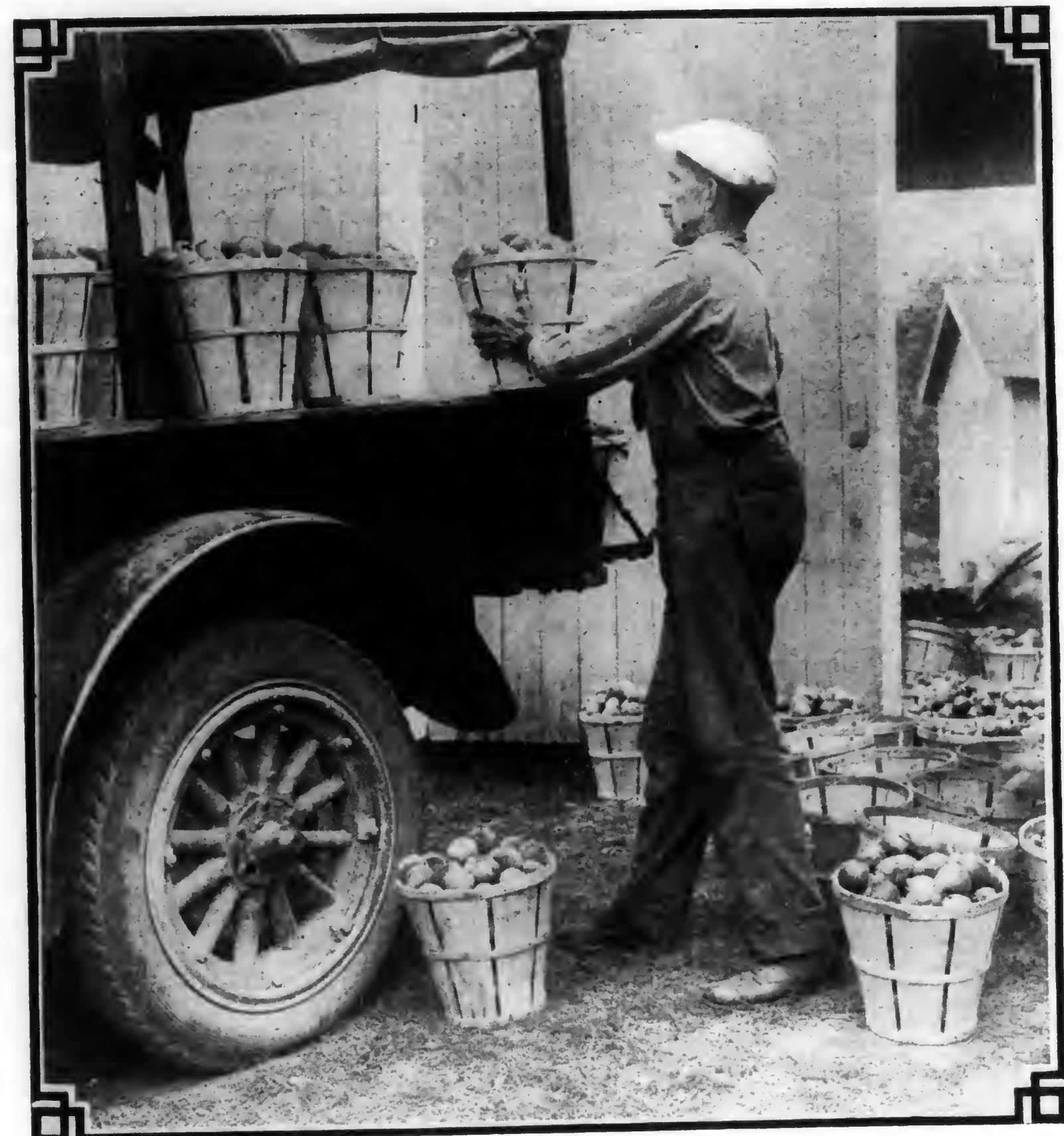
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October 13, 1928

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From sturdy boots, overshoes and work-rubbers for men and boys to dainty stylish zippers and rubbers for women and girls, the Goodrich line of tested rubber footwear meets the needs of every member of your family. **The B. F. Goodrich Rubber Company, Akron, Ohio.**

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October 13, 1928.

PENNSYLVANIA FARMER

(103) 3

Farm Facts and Fancies

By ALVA AGEE

THERE is a political observer—a widely-read newspaper correspondent—whose judgment of political trends I value above that of most men. He and some others incline to believe that two great political parties will come in time to represent city sentiment and country sentiment as the two conflicting forces in national life. He sees national issues growing out of conflict in the thinking and in the interests of the two groups. I would not mention this view if it were not emphasized, and if it did not seem to me badly based and a pernicious influence on American thinking.

The fact is that we are bound together, and mutual interest is recognized, as never before. The farmers want the factories to run, and manufacturers want the farmers to be able to buy. This is only one example of many factors on the economic side.

There are the beliefs underlying social and religious life that are shared by country and city and help to maintain mutual interest. We have no fixed class or occupational lines dividing the people, but lines constantly being crossed both ways. Better communication keeps us in touch. It is all right to get excited during a political campaign, it may be, but only harm can come from the false idea that there is any fundamental conflict between city and country in America. Mutual dependence and respect stand out more prominently than ever before.

Certified Seed Potatoes

We save something near a tenth of the year's potato crop for planting the following season. I don't know what proportion is seconds but, whatever it is, it should be smaller—there is so much uncertainty in a potato crop that it doesn't pay to add to it by using small seed. So many diseases can be carried in and on the tuber that the business of producing seed will go more and more into the hands of regions and of growers who can furnish sound, productive stock.

South Jersey has the soil, and the fall furnishes the right sort of climate. There are counties in northern Pennsylvania that are nearly ideal—cool summers, a loose soil little infected with disease, and nearness to growers needing to buy seed. There are sections in northern Ohio that are finely fitted for this business. Only one thing restricts demand for certified seed, and that is failure of some growers and certification officials in some instances in the past to realize how great care must be used to prevent diseased stock from getting on the market. A few men can do a lot of harm to this relatively new industry, which has a big future.

A Bit Surprised

Some easterners interested in co-operation make the trip to the Coast to learn about it. They find much efficient co-operation in grading, shipping and selling, made easy by the helplessness of producers remote from market. Alongside of these associations they find big individual distributors handling a large share of the state's product. They find much overproduction where prices have made a line profitable in the past, and pretty general

abandonment of the idea of price control. They find that the scheme of controlling distribution by use of long-term contracts with producers is not well regarded. Membership must be composed of willing people, and willingness must rest on efficient performance by the association. Satisfactory control of an actual surplus remains an unsolved problem.

A Reason for Crop Rotation

Our farming authorities tell us that there are two really essential reasons for crop rotation: the opportunity of bringing in a crop like clover to supply nitrogen, and the control of weeds, insects and diseases. Other reasons are regarded as minor. I believe this is true of areas having good natural physical condition of the soil, but in the eastern states a big percentage of the land is naturally too compact for easy cultivation, and rotation is essential to get plenty of material to plow down for improvement of condition.

I have told young men that in the selection of a farm a prime consideration was what old-fashioned farmers call "natural strength", and that good land in a run-down condition was worth more than naturally poor land that had been coaxed up. I do not take the statement back, and yet today I should be attracted more by naturally good physical condition than by the fertility in a compact, intractable soil such as many of us have dealt with. The latter suits grass, but its tillage is costly, and there is less choice of crops. A crop rotation that gives a heavy sod for plowing down is essential to it. The owner of such land has a good deal of work to do that nature has done in the case of a loamy soil.

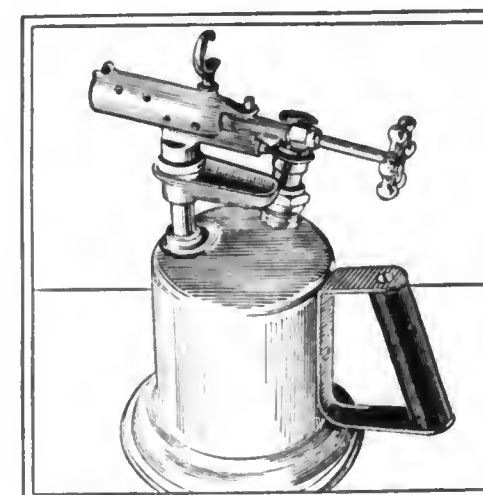
Roadside Trees

I have been reading an excellent bulletin on roadside trees. Any one liking trees as much as I do can easily believe that wise and extensive planting would add greatly to the attractiveness of farming regions, and all of us carry in mind many examples of it. There is a side to the proposition rarely mentioned, and that is the inroad made on the crop production of fields along the road, especially when some of the most desirable varieties of forest trees are grown.

The shading of the ground is even less serious than the use of the soil water by the tree roots. Where land is fertile and high-priced, the owner makes a contribution to the public at the expense of some cash income. That is to say, the trees are a luxury, but they add to the attractiveness of a farm. I mention this because one does not like to be thought unaware of the practical side of the matter when urging roadside planting. It is also for the benefit of any reader who likes to criticize country ways. There are good reasons for most established practices. Then, too, we are hardly far enough away from the day when the necessity of clearing land kept people from appreciating trees.

As the country grows older we shall more fully value nature's noblest and friendliest plant. We are paying for luxuries all the time, and roadside trees are among the best. They give a man's home and farm the appearance of substantial well-being.

Jim Hurlburt
is
all
set
for
the
pipe-
thawing
season
with a
Clayton & Lambert



BLOW-TORCHES

Thawing frozen pipes
Providing heat for camp stove
Heating glue pot
Cleaning engine
Repairing automobile radiators
Soldering steel cable with solder
Melting metals
Treating old beehives (inside)
Boring brush while clearing land
Repairing gasoline stove cans
Loosening rusty bolts and nuts
Soldering electric wiring
Killing tent caterpillars
Starting back-fires during forest fires
Starting engines in cold weather
Heating for bending piping
Loosening soldered articles
Bending metal
Printing signs on cottages
Use for light at night when soldering
Cleaning goose-neck in sinks
Starting hard coal in furnace
Singeing dressed poultry
Heating wax for grafting trees
Melting old inner tube to make gum to put on slipping belts
Wood finishing
Lead and wax filleting
Shaping steel plates (small)
Taking off press-fit bearing axles. For this heat all around bearings
Removing kingbolts
Heating metal for boring wood or a sifter metal
Heating flux solder in radio work
Loosening rusted-in wood or machine screws to facilitate removal
For hobbiting and for shrinking collars or other parts on small shafting
Charring wood

IT GETS mighty cold around Jim Hurlburt's part of the country. Pipes have a nasty way of freezing up and causing trouble. So when we asked him what he uses a blow-torch for he had a ready answer. Thawing pipes. Any other use was something to do with your blow-torch when you weren't thawing pipes. Sure, he does an occasional soldering job with it. Oh, yes, he frees rusted nuts and bolts with it. No, never tried starting the furnace fire with it, but that seemed like a pretty good idea.

This all came out as we were inquiring of farmers what uses they found for blow-torches. After interviewing Jim Hurlburt, we were certain thawing pipes belonged near the top of the list.

When you find a pipe frozen, or getting that way, it's a poor time to discover that your blow-torch isn't working right. We'd suggest you give yours a good workout some day this week and make certain it's ready for any unexpected emergencies.

And if it turns out you need a new one, we know you can't get a better blow-torch than a Clayton & Lambert. We've put so many patented improvements into blow-torches—exclusive to Clayton & Lambert torches—your money can't buy better or longer service.

We've designed the tank to stand all sorts of rough handling. It's made of heavy-gauge, seamless, drawn brass. The concave bottom acts as a funnel in filling. The handle is perfectly balanced. The filler plug has a lead washer, because that kind makes a tighter joint and lasts longer. The pumps have double-spring check valves which are not

only fast acting and efficient, but also have given as high as twenty-five years' service!

The main thing about a blow-torch, though, is the gas orifice. Must be exactly the right size—and stay that way. We've designed the orifice on Clayton & Lambert 158 so that it won't spread from a careless twist of the shut-off, and the more expensive models can't be spread no matter what you do!

To make sure you can't mistake a Clayton & Lambert torch, we've put a red handle on it. Look for that when you ask your hardware dealer

for a torch. If you don't find Clayton & Lambert torches sold in your locality, drop us a note and we'll see that you're supplied promptly.



CLAYTON & LAMBERT MFG. CO.

See What You BUY



The outstanding ability of the Goodyear All-Weather Tread Balloon to translate engine- and braking-power into positive getaway and stop is a plus value built into a tire remarkable for its economy, dependability and good looks.

You're never disappointed when you go to your hometown dealer for a Goodyear Tire.

You see what you buy; you know the man who is selling it to you, and you know right where to find him whenever you need tire service.

Your Goodyear Dealer sees that you get the right size and type of tire for your car.

Then he mounts it on the rim for you, fills it with air, and is glad of every chance you give him to help you get out of your Goodyear Tire every low-cost mile built into it at the factory.

The tires he sells are the most popular in the world.

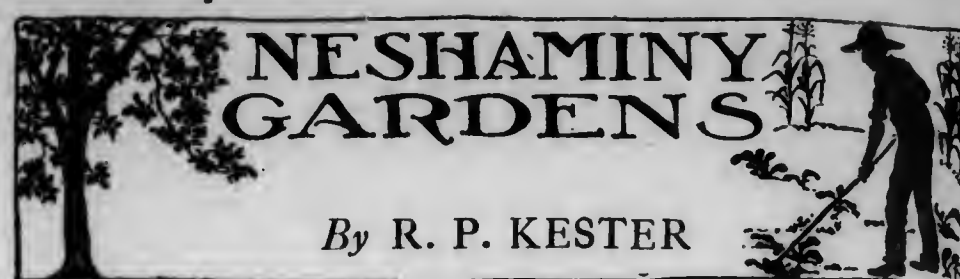
The service he renders completes a combination of tire value and money saving that thousands have found they cannot get anywhere else.

Goodyear makes a tire to suit you—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the thoroughly dependable but lower-priced Goodyear Pathfinder.

The Greatest Name in Rubber

GOODYEAR

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I NOTICE that under the new arrangement affecting Pennsylvania Farmer my old heading has been abbreviated. The phrase, "Where an Editor Works and Thinks," has been eliminated. Maybe it is all for the best. Of course, I am not now an editor, officially, and it may be contended that I do not work nor think. But whatever may be the truth I still run my old typewriter. It has served me faithfully in the past when I had gaping vacancies of space to fill and has become almost automatic in its ability to turn out copy.

The end of September sees most of the fruit and garden crops gathered. Celery is being sprayed and handled and the grapes are being harvested this the last week in the month. Our grape crop is not quite up to the crops of last year and year before. This is because the early sprayings were not applied and the berry moth and black rot took their tolls. Many of the bunches were small and imperfect because so many berries went bad when about half grown. To prevent loss from these, the worst two troubles for grape growers, it is necessary to spray early with Bordeaux mixture and arsenate of lead, and follow up with additional sprayings throughout the season. However, we had a nice lot of excellent grapes which sold readily.

The last planting of Golden Bantam sweet corn, planted July 6, was ready for use September 18 and is practically gone now. While it was the best of all the plantings of this variety we made this year, it was not perfect by any means. It seems to have been a common experience with this variety this year. The stalks were unusually dwarfish in nature and the ears short and poorly filled. If any one has had ideal success with Golden Bantam this year I should like to know it. I have been blaming it on the seed we bought, but if it has not done well for others there must be some other cause.

If we had known last spring what we know now we would have applied at least twice as much fertilizer to most of our garden crops. The excessive moisture and consequent evaporation during the season kept the soil temperature below normal. When this is the case the soil nitrogen is not made available as fast as crops need it. To supply the deficiency plenty of soluble nitrogen should be added so that crops may make their maximum growth. Paradoxical as it may seem, the same thing holds true in an abnormally dry season. Although the causes are different the effects are the same.

During the past three years we have used paradichlorobenzene (PDB) for the control of peach tree borers to our satisfaction. We applied it again on the 15th of September. One application a year seems to be sufficient with us. A discussion of this subject appeared in Pennsylvania Farmer two weeks ago. While it is work properly to prepare the tree for the chemical, still it is not the tedious, back-breaking job it is to dig out the borers in a badly infested tree.

One of the first affairs we attended after moving to Bucks county was the

Trenton State Fair nine miles away. With one exception I have attended every one since. The greatest change noticeable in the exhibitions in the fifteen years is in the kind, character and efficiency of the implements and machinery for the farm and home. Of course, there is a noticeable improvement in the livestock shown, but the casual observer would not be struck by it since the improvement is in quality and producing ability. But I see no improvement in the midway and other catch-penny attractions. They have the same hocus-pocus exhibits and side-shows, the same line of games of chance, the same flamboyant pictures, and the same kind of leather-lunged "barkers" in front, and last but not least the same kind of human nature milling around in front of them and paying its money to go in and be taken in.

Barnum is credited with saying that the American people love to be humbugged. The longer I live the more convinced am I that he was right. It is evident that a good many people get a real kick out of being fooled. If they did not, many of the easy-money schemes which flourish everywhere would soon fail. The quest for the unusual, the horrible, and even the impossible, is universal, and probably the fakes are enabled to continue because people think that maybe, just maybe, the promised sight might prove genuine.

The complimentary tickets to the fair which wife and I received admitted us also to the grandstand where we were entertained by music, acrobatic performances and horse racing. Trenton Fair has an excellent track and draws some speedy horses. But there was something omitted either in my make-up or my education because I am utterly unable to enthuse over a horse race. This apathy is not due to any principle or scruple, and I have tried time and again to enter into the spirit of what is called the sport of kings, but it simply isn't in me. However, the grandstand seats provided places for a much needed rest.

The display of farm machinery actually doing field work, which I understand was inaugurated by Secretary of Agriculture Duryee, was interesting and instructive. Farmers are always interested in seeing implements at work since it gives a much better idea of their performance than looking at them merely idle along in their booths and show spaces.

In spite of their defects and shortcomings agricultural fairs continue to be not only popular but helpful. They furnish at once social, educational and recreational opportunities, and they help to keep the minds of the city people, the largest attenders, acquainted with the fact that there is such a thing as real agriculture.

New Jersey growers are about to harvest a crop of winter apples estimated at 600,000 barrels, as compared with 611,000 barrels last year. The condition of the total crop at the present time indicates a total production of 2,914,000 bushels for the state, or 217,000 bushels more than the 1927 yield. The apple industry in New Jersey has made rapid strides during recent years.



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No. 4

MEAT EXTENDER

THAT is the name now given to anything that makes the ultimate consumer think he is getting as much meat in his diet as he wants. The "extender" may consist of rice, beans, cheese, eggs, potatoes—any food that is palatable with any meat. In the future as in the past probably the best as well as the most common of the "extender" meat dishes will be known as HASH.

BUSINESS MEN VOTE

THE Pennsylvania State Chamber of Commerce's referendum on the bond issues to be voted on next month shows how the business men of the state regard Amendment No. 2, providing \$8,000,000 for buildings at Pennsylvania State College. That amendment received the highest vote, 63.4 per cent, away above any other. The people of Pennsylvania should not neglect this opportunity to see that their boys and girls have a chance for higher education. Our State College should be put in position to educate our boys and girls instead of turning away a thousand or more of them every year.

SCIENCE AND EXPERIENCE

MODERN science tells us that milk should be kept in the dark, that exposure to sunlight or daylight results in undesirable flavors. Our grandfathers and grandmothers knew this, so they built their milk houses or spring houses to be cool and dark. In several other cases the conclusions of experience have been found to agree with the later conclusions of science. For instance, farmers claimed that yellow corn had certain virtues not possessed by white corn and scientists declared that such an idea was erroneous; but when they discovered the effect of vitamins they came to agree with those whose conclusions had been formed by experience.

TWO SUGGESTIONS

DEAN H. L. RUSSELL of the Wisconsin College of Agriculture told the American Bankers' Association a few things last week which should be known to a much wider circle than one business or profession. After discussing and discarding several proposed panaceas for the real and the alleged ills of agriculture Dean Russell ventured a few constructive suggestions. The first is that Congress "refrain from further reclamation until population needs warrant development." We believe that Congress should refrain entirely and leave reclamation to the time when it is justified by financial returns—at which time capital under business enterprise will attend to it and do it economically. The next suggestion of Dean Russell is "a non-political, non-emotional critical study of taxation, with the object in view of placing

this important and necessary attribute of government on a sound and modern basis." That is a more important question today than any other before our country; and yet it is being studied only in an unsystematic and local way. Perhaps such study is essential to a later and comprehensive one; but it is time to undertake the latter when taxes on farm real estate not only amount to a rental but constitute an unfair proportion of the total. Whether a modern and equitable system would transfer taxation from property to income or to sales or consumption Dean Russell did not undertake to say. He merely made a plea for a proper system, based on earning capacity of the subject of taxation, whatever that may be. These two suggestions are not all, but they are sufficient for anybody to ponder at one time.

NOW AT NESHAMINY GARDENS

REBUBEN P. KESTER, late editor of the Pennsylvania Farmer, was so steeped in modesty that he failed to say to his readers a word about himself before the consolidation of the two Pennsylvania papers went into effect. But his friends are entitled to know about him and his work, so let us say that he is where he wants to be and where some other editors would like to be, on his own farm. There he not only works and thinks but also writes for the readers of this paper. For a long time prior to this consolidation Mr. Kester had been planning to do just what he is now doing and he promptly improved his opportunity to "make his dream come true."

THE GENTLE KILLER

AT the recent fair at Hemlock, Livingston county, N. Y., there was a parade of livestock on the track. In this parade Edward Sherman, employed by C. E. Purecell, led a prize-winning bull. He returned the bull to its pen after leading it around the course and was about to close the gate when it attacked him and gored him to death before any aid could be given, although several bystanders rushed to the rescue. The victim in this case was armed with a pitchfork, but as usual it proved to be a worthless weapon. Probably no weapon is worth much when a bull charges swiftly and repeatedly as in this instance. The lady who sends us an account of the fatal accident says it is "another case of a gentle bull"—which in an instant became a murderous one.

ALL NEEDED

OUR Secretary of Agriculture appears to be considerably concerned about the disposition of what he calls "a bumper yield" of corn, around 2,931,000,000 bushels. To ease his mind let us suggest that this is not "a bumper yield". Five times since 1914 it has been exceeded and it is practically 300,000,000 bushels below the real bumper crop

of 1920. It is a significant fact that all of these larger yields have been disposed of.

The Secretary says that by increasing the average weight of 45,000 hogs five pounds and the average weight of 2,225,000 steers 100 pounds the feeders of the country can utilize over 50,000,000 bushels of corn without seriously disturbing the meat market. Maybe so; but the extent to which corn is fed will be determined largely by how much hogs or cattle pay for it or promise to pay for it. If hogs will pay a sufficient premium for corn the feeders will add more than five pounds to the average weight. If conditions justify the investment of more corn in cattle they will get it. For a part of this year's crop there is a place the Secretary has not mentioned. It is in the cribs of the farms which grew it. Farm stocks of old corn are too low and will be restored as soon as farmers are in position to do it. A reserve of corn is a mighty comfortable thing for a stockman to own and that fact is generally realized at this time. All of this year's corn crop is going to be needed no matter how big it may be.

TO FINANCE RESEARCH

HOW to provide more money for research in agriculture and at the same time lop off a quarter of a billion dollars of appropriations is one of the problems before the Director of the Budget and the Congress. Representatives of fifteen organizations, agricultural and other, have made a plea for an increase in the amount appropriated for fundamental research in agriculture. Their plea should be heeded regardless of the budget; for such research is not merely an item of current expense. It is a policy, a long-time investment which is certain to pay in the end. And it is certain to pay all classes of our people, not merely those engaged in agriculture. If we could all realize this basic truth research would be properly financed instead of skimping and limping along as in the past.

A GREAT BREEDER

TS. COOPER, distinguished breeder and importer of Jersey cattle, died in New Zealand, September 27, almost seventy-nine years of age. Mr. Cooper was the most extensive and most successful importer of Jerseys in this country. His first importation was made in 1880 and his first sale was held in 1883. Many importations and sales followed, all with credit to him and with untold benefit to the dairy industry of America. His success was based on the solid foundation stones of good judgment, attention to business and integrity. He enjoyed to an unusual degree the confidence of the public, while his judgment of cattle was everywhere respected. The whole industry of livestock breeding is poorer by the loss of such a man and such an example.

By GERALD E. McCORD

Man-Power Still Reigns Supreme in Japanese Rice Fields

tails or else trodden out beneath the feet of animals. After the threshing is finished the grain is winnowed. If there is not enough natural breeze a good one is created by the youngsters with straw mats. Then for a little while the old folks sit around and gossip and watch the younger ones as they play games. But it is not for long, for harvesting is back-breaking work and even a hard Japanese bed feels soft during the short hours till dawn returns.

Find Contrast in Life

There is a little machine slowly coming into use that might be called the "individual" threshing machine. It is a wooden drum on the curved surface of which are fastened wire points. This revolves inside a slightly larger drum that has a funnel-shaped mouth. The heads of the rice are stuck into the opening and the wire pins tear the grain from the stalk. The power unit for this contrivance is the same as that usually attached, more or less temporarily, to the American grindstone. Most often it falls to the farmer's wife or daughter to run the machine, for in Japan the women work beside their men in the field.

Truly, one-half the world does not know how the other half works. In Japan you find the best contrast between ancient and modern life. In and out among fields plowed with oxen hooked to a bent stick

The "individual" threshing machine is slowly coming into use.

A view taken one mile within the city limits of Nagoya, Japan, a city of some six hundred thousand inhabitants.



Good management, their courage, bravery, common sense and all the other qualities that stood our pioneer ancestors in good stead in their hard lives are needed today.

The Open Road

By S. H. Green

WHEN you are at work in the fields and hear some kind of driver a-humming down the tall corn, whizzing by even though they did not exist, what's your reaction? It's all right on the surface, but how about the underlying way,

Many farmers have adopted the same practice of cutting off the corn at the corners of the main roads. For the safety of all, it is

[illegible]

School is open and thousands of students must traverse the highly trafficked roads. We should make it our duty to impose a charge of the roads as to any money. From the view of the government and officials are unaware of the road conditions and are very glad to have this money. Before some sad disaster occurs, let us sorrow to the personal responsibility.

LAST SPRING two clumps of *P. communis* failed to start, because the wind blown off them. These particular were tender for the five-above-zero weather.

Remembering my losses, I am cautious about much this winter. I cut much of leaves, I am having none this year. I used evergreen branches and most likely carried some of the brand

WE frequently fret under the restrictions placed on us by our quarantine regulations. We have, however, in the spread of two of our worst insect pests a good illustration of what quarantine versus no quarantine will do in limiting the spread of an insect. The Japanese beetle and the Oriental fruit moth made their appearance in this country about the year 1916. The federal government and the states immediately threw a quarantine line around the Japanese beetle infested area. As the insect spread this quarantine line was extended to keep in line with it. The result of twelve years of this activity has limited the Japanese beetle to a spread over four states in the Philadelphia area. The Oriental fruit moth made its first appearance in Washington, D. C. No quarantine to check the spread of this insect was placed by either the federal government or the states in which it appeared, yet in twelve years this insect which is a poor thief compared with the Japanese beetle, has spread over the whole of the United States east of the Rocky Mountains, appearing in every peach growing center and causing serious damage to fruit growers. Its devastations in the country today far exceed those of the Japanese beetle.

J. M. BOYER of Lykens, Dauphin County, Pa., reports a ton litter of 11 pigs which weighed 2,692 pounds at 80 days of age. He tells us that he raised these pigs under the most sanitary conditions possible. He washed his sow before she farrowed, put her in clean quarters for farrowing and took her from there to a bluegrass pasture where the pigs remained throughout their growing period. The mother of these pigs was a pure-bred Duroc sow and the sire a pure-bred Chester White. He fed the pigs the standard 4-3-2-1 ration which consists of four pounds of corn, three pounds of ground oats, two pounds of straight middlings and one part of fishmeal. He kept an accurate record of all the costs including a liberal allowance for labor and says that the entire cost of this litter under this year's conditions was \$266.16. He sold these hogs for \$336.50, which left him a nice margin of profit.

THE voters of Centre county, Pa., will face two questions on their ballot when they go to vote at the coming election, one included on ballots in other counties of the state. The first is, do the people of Centre county want a county library? The second is, if so are they willing to have their county commissioners add an additional mill to the county tax to support it? A favorable vote on these two questions will bring about the raising of \$17,000. With this money it is proposed to establish a central library at Bellefonte, to employ a librarian, and then establish a county library service which will extend into every town and school district of the county. The county library system is not new in Pennsylvania. Dauphin and Schuylkill counties have well established library systems supported by county funds. Lancaster and Indiana counties subsidize several town libraries which give service outside their town limits. The Centre county plan of providing a staple annual income, however, goes far beyond the plan in the above named counties and to us seems far the wiser course to follow.

THE poultry experiments in chick rearing conducted at the Pennsylvania State College during the past two years have brought forth a practical way of controlling poultry parasites, which is gradually winning the approval of leading poultrymen throughout the state. It consists of placing healthy one-day-old chicks in concrete houses, preferably with concrete floors which can be thoroughly sterilized, and keeping them there or in similar houses throughout their entire life. The records of the College poultry plant show that of the 4,500 chicks started and grown under this plan of management during 1927, 89.8 per cent matured. The results with 8,000 chicks handled in the same way this year are equally good. There are a large number of 200-day eggs here in the flock raised last year, the record being the best of any year to date. And the hatchability of the eggs is exceptionally good, running slightly over 80 per cent for 25,000 White Leghorns hatched this spring.

Eastern Farm Comments

By MILES HORST

THE scouts of the Pennsylvania Department of Agriculture checking on the corn borer infestation throughout the state report that in the three counties—Erie, Crawford and Mercer—where the infestation was heaviest last year, less borers have been found this year than a year ago. The farmers in these three counties made a thorough clean-up of all corn fields last spring. In other infested counties where no organized effort was made to clean up corn fields the infestation shows an increase, although in rare cases has it become of economic importance. The evidence accumulating on the control of this corn pest is dispelling much of our fear



Nellie Osborne of Elmshade 16th, owned by W. C. Wylie of Howick, Quebec, set a new Ayrshire world's record for both milk and butterfat by producing 27,198 pounds of milk and 1,257 pounds of butter in 365 days.

that our future corn crops may be threatened by it. But it does drive home the fact that we must adapt our cultural practices as have our farmers in the heavily infested area so as to destroy as many of the borers as possible before they emerge in the spring.

PAUL CROSSMAN, county agent of Erie county, reports the following results on an oats variety demonstration conducted in his county and under his supervision. The yields of the different varieties are given on an acre basis as follows: Miami, 59.3 bushels; Carmellian, 61.3 bushels; Keystone, 58.9 bushels; and Victory, 61.1 bushels.

THOSE of us who have struggled to plow down a dense mass of soy beans or sweet clover with our ordinary plows during late summer will appreciate the information that comes from a farm in Perry county, where a demonstration was staged in plowing down soy beans with a heavy 18-inch bottom corn-borer plow. County Agent Rothrock of this county tells us that the heavy coulters on this plow cut the stems of the soy beans and turned them down practically 100 per cent, and the work was done with ease.

MORE proof to the advisability of using superphosphate (acid phosphate) at the rate of 200 pounds per acre on wheat is given by a fertilizer test conducted by County Agent McCullough of Lawrence county. In this test the biggest increases in yields were given by the application of 200 pounds of superphosphate per acre. Where 400 pounds of superphosphate were used the yield was actually less than where none was used. Since the amount and kind of fertilizer to use for most profits must depend largely on what is already in the soil, each farmer will do well to experiment with his own fields. It is generally admitted, however, that fertilizer usually pays.

seller did not willfully unload this seed on his customers. What actually happened was that his wheat ran high in moisture when threshed and consequently heated in the bin without his knowledge. Be that as it may, the lesson driven home with this experience is that it does not pay to sell or buy seed of any kind without there accompanying the seed a guarantee of germination.

THE premium list about to be issued by the Farm Products Show Commission of Pennsylvania indicates the distribution of more than \$10,000 in cash prizes to exhibitors at the coming annual show to be held at Harrisburg, January 22-23-24-25, 1929. Two new features are included in this year's exhibit; one is an exhibit of vegetables and the other an exhibit of home economics displays.

W. Va. Farmers' Week

FEATURING the annual corn and grain show at West Virginia's Farmers' Week, starting February 5, will be a farmers' corn judging contest in which each county will be entitled to enter a team of three members.

In this contest, each team will be expected to place two rings of corn, each ring containing four ten-ear samples. Not only will this contest provide a new source of interest for Farmers' Week, but it will also aid in giving West Virginia farmers a better knowledge of high-grade seed corn.

The team winning the corn judging contest will be awarded a silver loving cup by the show.

To obtain aid in organizing and training a team as well as information about making entry in this contest, the county agent should be consulted.

The farmers' corn judging contest is to be held February 6, the second day of Farmers' Week. This contest is to be made a regular event during Farmers' Week in following years.

Tattoo Jersey Cattle

TO establish a uniform method of identification for Jersey cattle the members of the American Jersey Cattle Club this year adopted a By-Law which requires that all animals to be registered after January 1, 1929, must be tattooed. The Article covering this reads as follows:

"Eligibility.—1. No animal shall be registered until both its sire and dam are registered; and, to preserve the identity of registered animals, all animals offered for registration must be plainly tattooed in the ear in indelible ink with such letters and numbers as the owner may select, no two animals to have the same number. Both ears may be used, and the marks and numbers in the ears must be stated on applications for registration.

The above requirement as to tattooing shall go into effect on January 1, 1929."

Master Shepherds

A FEATURE of the second Pure-Bred Ram Special, which completed its itinerary in West Virginia on October 1, was the discussion of the master shepherd project by C. V. Wilson of the College of Agriculture. The aim of this project is to enlist a number of shepherds in each county for a period of three years. These men will carry out the best known practices in breeding, feeding and management of the flock as relates to production and marketing of lambs and wool. As a recognition for having achieved success with this project those completing it will be given the title of Master Shepherd and will be presented with a certificate by the College of Agriculture.

The Ram Special this year made fourteen stops in as many counties and distributed 212 pure-bred rams to sheepmen in the Mountain State. About 4,000 farm folks listened to the programs and observed the demonstrations in connection with the trait.

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Special gum-driven fabric vamp and leg prevent snagging and cutting. The famous ribs or muscles, another exclusive Top Notch feature, prevent cracking.

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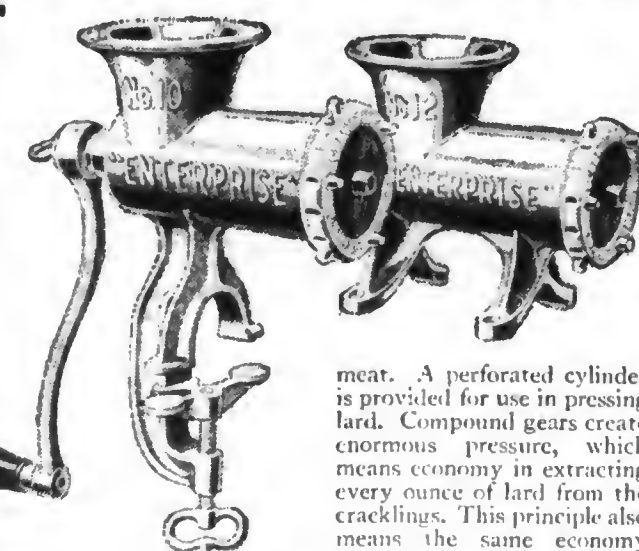
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IF you kill some of your hogs and provide yourself with hams, bacon, lard and sausage, you get more delicious food at lower cost. The improved "Enterprise" Meat Choppers and "Enterprise" Combination Presses provide the means for this profit. "Enterprise" Meat Choppers (shown above) have been greatly improved, so that it actually pays to buy a new one even though you may now have one of the older models.

The new pattern steel knife revolves against the perforated steel plate and the cut is perfect—no grinding, tearing or crushing and no waste of the rich juices.

Different models for hand operation sell for \$3.25 to \$11.00.



meat. A perforated cylinder is provided for use in pressing lard. Compound gears create enormous pressure, which means economy in extracting every ounce of lard from the cracklings. This principle also means the same economy when the machine is used as a fruit press. The machine is all metal and therefore sanitary. Prices from \$11.50 to \$13.75, according to size.

Be sure you see the name "Enterprise" on the chopper you buy.

You should also have an "Enterprise" Sausage Stuffer, Lard and Fruit Press (shown at right)—no machine for three useful purposes.

When used for pressing sausage, the patented spur prevents spilling through air entering with the



"ENTERPRISE"

Meat-and-Food Choppers... Sausage Stuffers, Lard and Fruit Presses
The Enterprise Manufacturing Co. of Pa., Philadelphia, U. S. A.

An American Editor Abroad Artistry of Ancient Writers Still Unsurpassed

WE couldn't take our car and driver from northern Ireland into the Free State without giving bond for the car and getting a license for the driver, involving both trouble and delay, so we parted with them at Belfast and took the train to Dublin. It is a beautiful ride on a sunny day, with the ever-verdant fields in the lowlands and on the hills and heather in bloom on the barrens, of which there is not a great extent. We halted at Dundalk while customs officers of the Free State examined our baggage. They merely asked a question or two and opened none of it, nor did they show any interest in passports.

Some experience with customs officials in several countries leads me to believe that they judge people rather than things. Twice I have taken into Britain more than the legal allowance of Pittsburgh stores, but in both cases I told the truth about what I had and it was passed by the customs official when the tobacco of others was carefully taken out of its boxes, weighed and taxed. In both cases the customs officers have declined my offer of a story after taking a good look at the one I tendered. One of them remarked that he preferred a pipe, while the other said he wanted to live the week out! But my stories were so popular over there that they didn't last very long.

The people of the South are descendants of Celts, warm-hearted, sociable, humorous, impulsive, combative and likable. They are less rigid in many ways than the descendants of the Lowland Scotch and the Saxons in the North. Both races are in both regions, however, so it isn't safe to generalize by mere location.

The Book of Kells

At Dublin I attended the weekly luncheon of the Rotary Club, and found there men who knew some of my friends in America. The man who sat beside me at the head table had known Henry Wallace, Sr., whom I first met almost forty years ago and who was the father of the late Secretary of Agriculture Henry C. Wallace. The speaker, who told of his experience in South America, mentioned the fact that he came from a Quaker family. He committed the rare breach of making too short a speech and they recalled him to the floor. In Europe one principle of Rotary—international good will—seems to be taken more seriously than in our country.

One of the world's most famous books is in the library of Trinity College in Dublin. This is the Book of Kells, so called because it was made in the Abbey of Kells away back in the eighth century. Only one page of that book is shown to the public each day, and it is most carefully guarded as it should be. We were informed that we would not see this famous volume because of vacation time at Trinity and I asked Doctor Stokes of the Rotary Club to help us get a view of it. He took his time to escort us to the Li-

brary and his opened the book that we saw many not all of its pages transcribed in the most beautiful brilliant illuminated letters.

By the courtesy of a professor Trinity we were able to put it under magnifying glass, and the more we of it the more wonderful it appeared. For every circle, every angle, every line appeared to be as true as if made by some delicate machine that could not err in dimensions or proportions. Photographs of its pages, reproduced and magnified on the screen, fail to show any errors or any deviations in precision in its elaborate drawings. The monks of Kells must have spent many years on their pious labor. Much training was doubtless necessary to make perfect those who were permitted to work on it.

A my term, fact two of the appear. On a pages, the information is complete. It is supposed that the hand of the artist and he richly serves the death and no successor found to finish his work. Names of the who wrought in a very few known, for the modestly left the signature to a last, and the pages are missing. Many of the first initial letters in modern typography come from this Book of Kells, designed twelve centuries ago in an Irish monastery by unknown artists. The book has no other romantic history too, but I must not go into that.

We hired an automobile and drove out of Dublin to the famous Hill of Tara, the seat of the prehistoric legendary Irish Kings. It commands a broad view of a green and fertile country, which is nearly all in the grass. It is the only land I have ever seen that was said to be too rich. This is what our guide called it, saying that it was so fertile that grain could not be raised on it, for in the moist climate they grow so rank that they lodge and cannot be harvested. At any rate very little grain grows that region, all is in pasture and even a acre of it will maintain a 1,000-pound steer, a mutton ewe and her lamb. The steers get a little oilcake or barley finishing time, but grass puts on most of their gain.

Tara's Halls

Our guide deplored the lack of firing in that community because grazing employs so little labor, and unemployment is a serious problem. He admitted that such a measure would be unjust unless the crop were assured a price for his product. He thought price-fixing would take care of that, but admitted again that some one must be taxed to provide the funds to pay the guaranteed price in case the market wouldn't pay it. We talked all around this circle as we walked over the Hill, but without getting anywhere, which is the rule in all economic problems in Ireland or anywhere. Five young men



Ancient Cross at Kells

Ten Big Reasons why Chevrolet is 1st Choice of the Nation for 1928

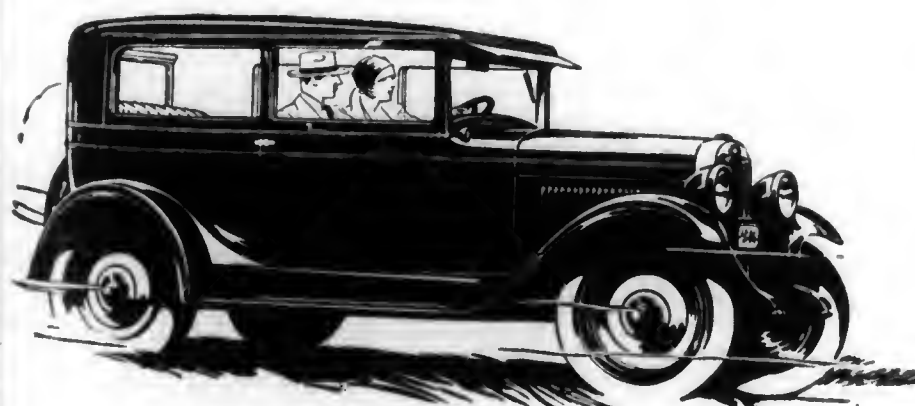
With over a million new Chevrolets on the road since January 1st—gaining thousands upon thousands of new owners every week—today's Chevrolet, by a tremendous margin, is first choice of the nation for 1928!

And no group of buyers have shown a more decided preference for this sensational car than those living in the rural communities of America—for here is provided, to a remarkable degree, those basic factors, so essential in an automobile for use on the farm.

Visit your Chevrolet dealer today and see the car that has won such nationwide popularity. Satisfy yourself that the purchase of a Chevrolet assures you more automobile and more all-round satisfaction than you ever thought possible at prices so amazingly low!

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1. DESIGN Chevrolet has always believed that the public is entitled to the benefits of engineering advancements as soon as they are available. Thus for fourteen years Chevrolet has followed a policy of progress, with the result that today's Chevrolet is modern to the minute in every detail of design.

2. APPEARANCE No automobile can possibly win widespread favor unless it is beautifully designed and proportioned. And today's Chevrolet provides these essential qualities to an exceptional degree because Chevrolet has at its disposal the unmatched creative and manufacturing facilities of the Fisher Body Corporation.

3. FEATURES By progressive design and efficient manufacturing there can be provided in any low-priced automobile those quality features on which luxurious motoring is based. And because the Chevrolet Motor Company has both the desire and the ability to provide quality features typical of the finest cars, today's Chevrolet is everywhere regarded as the world's most luxurious low-priced automobile.

4. PERFORMANCE Today, every car buyer is justified in expecting ample power, flashing acceleration and smoothness of operation. Chevrolet more than meets these basic expectations with a valve-in-head motor whose power is a matter of world wide fame and whose snap and smoothness are assured by alloy-invar strut pistons, large valves with mushroom type tappets, accurately counter-balanced reciprocating parts, and an extremely efficient fuel carburetion and distribution system.

5. COMFORT If a car is not truly comfortable over all roads, its other good qualities are greatly depreciated. With this in mind, the Bigger and Better Chevrolet is built on a 107" wheelbase, equipped with four long semi-elliptic shock absorber springs set parallel to the frame and with seat cushions provided with deep, resilient springs—a comfort combination unmatched in any other car at such low prices.

6. HANDLING EASE Modern conditions of traffic and the modern custom of taking long trips by automobile place increased importance on ease of control—a demand which Chevrolet has anticipated by providing a full ball bearing steering gear, smooth-shifting transmission, light pedal action clutch, and big non-locking four-wheel brakes.

7. ECONOMY True economy in buying a low-priced car is only achieved when the gasoline and oil consumption are consistently low. Chevrolet owners enjoy true economy of operation because of such modern features as pump circulation of oil and water, oil filter, air cleaner, ultra-efficient carburetion, crankcase breathing system, and thermostatically controlled cooling.

8. MAINTENANCE No car, regardless of appearance, performance or cost, can hope to win permanent or widespread approval unless it offers the dependability that assures low maintenance costs. Chevrolet enjoys world wide reputation for dependability because it is basically rugged in construction, built of the finest materials with the most modern precision equipment and embodies the results of millions of miles of testing at the General Motors Proving Ground.

9. RESALE VALUE Every automobile buyer today understands the importance of a car's ultimate resale value. Chevrolet owners are particularly fortunate in this respect because Chevrolet's rugged construction definitely assures many thousands of miles of dependable satisfactory transportation, while Chevrolet's style is so advanced that it maintains its good appearance for years.

10. PRICE True service to the public consists of sharing with the public the economies of large volume production. As a result of world wide popularity and tremendous production from fourteen great modern plants, Chevrolet is able to offer these beautiful modern cars at these amazing low prices:

The Touring or Roadster	\$495	The Convertible Sport Cabriolet . .	\$695
The Coach	\$585	The Imperial Landau	\$715
The Coupe	\$595	Utility Truck (Chassis only) . .	\$520
The 4-Door Sedan	\$675	Light Delivery (Chassis only) . .	\$375

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Windfalls Worry Growers As Jack Frost Threatens

By S. W. FLETCHER



AT this time of the year the fruit grower is between the sharp horns of a dilemma. Shall he pick his winter apples early or late? If early, he may lose in color and size, both of which have distinct market value. Moreover, the fruit is not likely to keep as well in common storage, because it goes in warm, and the cellar temperature is high. If late, he runs the risk of loss by wind, and sometimes by freezing. There is no rule; as in most other horticultural operations, it is a matter of judgment. The loss by wind is particularly aggravating. Hundreds of bushels of U. S. No. 1 fruit may be turned into culls over night. A dollar a bushel, or more, is knocked off the selling value.

Windfalls may be reduced by the exercise of judgment in the choice of a site. A site under the lee of a hill, or sheltered by a strip of native woodland, often escapes damage when exposed orchards suffer. In some cases it may pay to plant a windbreak, using mainly hardy native deciduous trees, such as sugar maple. This protection should not be secured at the expense of air drainage; the woods should always be above the orchard, not below it.

Woodland near the orchard, however, is open to one objection—it harbors pests, especially borers, codling moth,

tent caterpillars and curculio. Usually it is somewhat more difficult to secure clean fruit from the rows next to the woodland than from the rows farther away. The thornapple, wild cherry and red cedar, especially, should be cut out of a woods that is near an apple orchard. The fruit grower will keep one anxious eye on the weather and the other on the crop during the last two weeks of growth. A heavy rain, followed by frost, may loosen the stems, and the apples will rattle down like chestnuts, or like chestnuts used to in those glorified days when I was a farmer boy, before the blight snuffed them out.

It is safe practice to begin harvesting just as soon as the apples have good color for the variety, and separate readily from the spur. Varieties like McIntosh and York, which drop easily, require special consideration, but Ben Davis and Rome can be allowed to hang without anxiety.

Recently I saw a beautiful crop of McIntosh hanging on the trees—large, well colored and clean. A sale was made at \$2 a bushel, f. o. b., for the U. S. No. 1 grade. They were beginning to drop. Picking started on Wednesday, but Saturday night came with 1,500 bushels still to be picked, and the drop increasing. The owner knew that there would be a very heavy drop over Sunday, but he decided to observe the Sabbath. Monday morning over 500 bushels were on the ground. They sold for fifty cents to a dollar a bushel instead of \$2. Some would consider this too high a price to pay for conforming to a religious conviction; this man does not. Was he right or wrong?

Vegetable Growers to Stage Exhibit

By GILBERT S. WATTS

THE Pennsylvania vegetable growers are planning a real exhibit at the 1929 Farm Products Show. Now is the time to select and set aside or store fine squashes and pie pumpkins. Beets, carrots, salsify, rutabagas, turnips and parsnips may be saved at digging time or may be selected when preparing for market early in January.

liberal cash prizes: twenty-five dollars for the best display of a variety of vegetables attractively arranged, with fifteen and ten dollars for second and third places in this class.

Then there will be first, second and third prizes of three dollars, two dollars and one dollar respectively for the best commercial packages (baskets, barrels, crates, etc.) of each of the following: beets (globe shaped), beets (half long or long), carrots, onions (globe type from seed), onions (flattened type from seed), parsnips, rutabagas and turnips.

In addition prizes will be awarded in the same amounts for displays of 5 heads Danish type cabbage, 5 heads red cabbage, 5 heads Savoy cabbage, 3 pumpkins (any pie variety), 3 squashes (any winter variety). Five dollars will be the award for the best 12 stalks of celery (green variety), and for the best 12 stalks celery (easy blanching variety).

Neither have the greenhouse men been overlooked, there being cash prizes

for leaf lettuce (commercial package), tomatoes (2 pounds), 6 bunches of chubash, 3 bunches of Lima mushrooms, 5 bunches of white mushrooms, 5 bunches of brown mushrooms, 5 bunches of 3-pound baskets

In all two hundred dollars has been proved as premium money for vegetable exhibits at the 1929 show.

Pennsylvania vegetable growers, this is a double challenge. First, it is a challenge to stage a vegetable exhibit meriting so long and so liberal a premium list. Second, it is a challenge to show newspapermen and the thousands of visitors that throng the exhibit floors at Harrisburg the kind of vegetables Pennsylvania growers grow. But even more important, it is an educational opportunity of the highest order. We growers stand to be benefited in direct proportion to what we put into it. Note that the majority of the classes are for commercial packs; that is, you simply pack in the same type of package and in the same manner as for market. Thus packages, packing methods and products may be seen and compared to the mutual enlightenment of all concerned. Then the list as constituted presents an equal opportunity to large and small growers alike. One may exhibit in as few or many classes as desired.

Humidity Is Needed in Storage

By F. H. BEACH

"I THINK I will concrete the floor of my apple storage," said a grower to me the other day as he took me into his storage. It was a below-ground type of storage with tile walls and a ramp driveway down into the storage. Above was a frame building used for packing fruit and storage of baskets. The floor of the storage was sticky clay and water-soaked with several puddles scattered around.

"I don't blame you for wanting to do something," I replied, for I could see that it was a disagreeable task to stack fruit on such a floor and almost impossible to get the truck in and out loaded with apples. "Yes," he said, "I just can't get along any more with this floor and I am going to lay a heavy concrete floor so it will be dry and level and so I can come in and out with my truck easily."

Slatted Boards Best Floor

"I realize the advantages of concrete for a floor," I continued, "but have you also considered its disadvantages for a storage floor in an air-cooled storage such as yours? It is always more difficult to keep fruit from shriveling where concrete floors are used. Of course they can be kept flooded with water to keep up humidity, but as a practical proposition this is seldom carried out thoroughly where concrete floors are used. I find that growers using sub-floors of slatted boards over earth are usually having the least trouble with keeping quality in the management of their air-cooled storages. Also this construction is much cheaper. We are taking a group of growers in your county on a tour to see some storages and packing houses in this county and an adjoining county this afternoon. The county agent is working it up. Why don't you come along and see how others have handled this problem before you get into the job?"

"All right, I'll be with you this afternoon," he replied.

Visited Several Storages

When the tour started that afternoon from the county agent's office he was there. The first storage we visited was of insulated frame construction and built entirely above ground. It had an earth floor and was proving very satisfactory. The second storage visited was a basement type of storage with tile walls and ramp driveway down into it and was exactly the same type of storage as the one first described. In this storage the floor problem had been handled by putting down a false floor of slatted boards over heavy pieces set on edge. This construction was proving very satisfactory and permitted good ventilation under the stacks of fruit. The driveway was to be finished in concrete or brick.

As we were leaving this storage the grower came to me and said, "I'm mighty glad you got me to come along on this trip. I believe I can go home now and get a better storage floor, using a slatted board false floor over most of the storage except perhaps the driveway, which can be handled in concrete or brick."

And this is the experience of most growers handling air-cooled storage houses for apples. The earth floor is worth a lot to keep the right humidity in the storage and prevent shriveling. By using a false slatted floor of boards over the earth the fruit can be stacked handily and still receive the benefits of the earth floor construction. Also this type of floor is adapted to getting the incoming cool air under all the stacks of fruit in the storage and has merit from this standpoint.

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The MARKET PLACE

By W. R. WHITACRE

NEW JERSEY sweet potato growers are optimistic despite the dull condition of the markets. The earlot movement from New Jersey has increased and this, combined with the spurt of shipments from the Eastern Shore sections, was largely responsible for this weaker tendency. New Jersey has a heavier crop than last year and receipts so far have shown good quality. This means that after this early movement, New Jersey probably will face lighter competition in the eastern markets and also in the Central West. Production was forecast early in September at 81,618,000 bushels, or over 12,000,000 bushels short of last year, with chief reductions in the South and the Southwest.

One interesting feature of the sweet potato market in Philadelphia is the fact that both yellow and red-skinned varieties are bringing practically the same price. During the last two years there has been a decided preference for red sweets and last year they brought a premium of 10c to 15c throughout the entire season. Dealers tell me that this year there are more of the red sweets on the market, and while they may meet a slightly better demand it is not sufficient to cause any material difference in prices.

The same situation has existed with string beans this season. When there are equal quantities of yellow and green string beans the green seems to move a little better. But when the yellow variety is scarce and fancy they bring a substantial premium over the green. Yellow or wax beans seem to deteriorate more rapidly than the green, and unless they are crisp and free from rust they are hard to sell. String beans used to be just beans, but now the stringless varieties are those that are wanted.

WHEN we read of the heavy loss of life and property caused by the hurricane which swept over Florida and Porto Rico and when we recall other recent disasters such as the Mississippi flood we begin to realize how fortunate we are. Many have been attracted to distant places where fortunes can be made in oranges and truck crops, but after all our section of the East is a pretty fine place to live.

Early reports from Florida indicate a heavy loss of oranges and grapefruit. Just how heavy this loss will be cannot be determined until later. The Lake Okeechobee region, one of the largest vegetable sections, was almost wiped out. To the consumer in the city it may mean that prices of citrus fruits and winter vegetables will be higher. To the farmer in our eastern section it may mean a better demand for his fruit and staple winter vegetables. Oranges are direct competitors of apples and many a housewife compares the prices of these two fruits and chooses the one that is most economical.

DURING the past Grape Week I saw big displays of grapes and attractive posters in the big green grocery stores in Philadelphia. But—the posters picture California Tokay grapes and the grapes displayed are Tokays and Thompson Seedless which were grown 3,000 miles from here. Down in the wholesale section are stacks of Delaware and New Jersey Concord, but you do not see so many on the retail market.

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Champion X—For Model T Fords—packed in the Red Box—60c. Champion X—For other cars, including Model A Ford, and trucks, tractors, and stationary engines, 75c

CHAMPION Spark Plugs out-sell all other makes throughout the world, by the amazing ratio of two to one. Champion is accepted as the better spark plug.

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A complete new set of Champion Spark Plugs quickly pay for themselves in gas and oil saved. They bring to your engine better and more complete combustion, which means better all around and more economical car performance.



TOLEDO, O.

Markets Favor Local Farmers

A SURVEY recently completed by the Pennsylvania Bureau of Markets of the origin of shipments of fruits and vegetables into the fifteen largest cities of the state again emphasizes the vast quantities of produce that enter these consuming centers from other states and the opportunities open to local farmers. Take the leading fruits and vegetables grown in this state—apples, peaches, cabbage, lettuce, onions, potatoes, turnips and grapes. Of these 45,085 carloads were unloaded in the 15 cities, cited above, last year. And of these all but 3,421 originated beyond the state boundaries. California shipped 10,446 carloads; New York, 6,399; Maine, 3,158; Virginia, 3,422; Washington, 1,405; Ohio, 1,027; and Michigan, 1,080. It is true that the great bulk of produce produced on Pennsylvania farms looms far larger than the above figures indicate, for the truck is the most common carrier of produce from our farms. Nevertheless the large importations from distant areas with freight differentials greatly favoring local producers indicate possibilities that should be encouraging.

Friendly Talks

By Edgar L. Vincent

SOMETIMES I am a little ashamed that I have not greater confidence in nature to bring me the things I most need. When the year was younger than it is now, I had days when it seemed to me I would have very little to show for my season's work. The things in the garden looked so unpromising! Corn in the field scarcely knee high to a grasshopper, when it ought to be tasseling out, and other things the same way.

But now when I look about me and see how well the crops are coming on, the bins crowded and boxes and barrels full, my heart gives me a sorry blow that I have ever doubted that everything would come out all right. Now I know I am gathering in far more than I am worthy of. The year has been good to me in spite of my fears.

Have Faith in Yourself

And this has been happening all through the years. I have no reason to doubt that it will be so as long as I live. Does it seem reasonable that I should be so ready to expect that my farm will give me weeds and little else? What is this thing which seems to be so deep-seated in my nature which leads me to distrust a kind Providence and lose my peace of mind so uselessly?

Asking myself this question and trying to find the right answer it seems to me that my doubt grows from lack of proper faith in myself and in Him Who long ago told us that there should always be seedtime and harvest and promised that if we do our part, He never will fail to meet us more than half way.

But why lose faith? I believe that the state of our health has more to do with this than anything else. We work too hard, we do not rest enough, we do not sleep enough to get back the strength we lost in yesterday's busy hours. So this is what I believe. We ought to take better care of ourselves, we should take time to straighten up our lives and look away to the hills from whence cometh our help, and above all we ought to leave more of our day's work to Him Who stands ready to share our every burden if we will only let Him.

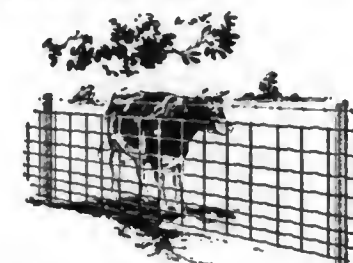
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Good farm management means good buying as well as good cultivation, feeding and marketing. Better values in the equipment you buy mean better and more profitable service from it.

In buying Pittsburgh Fences you get strong, effective fences at the lowest possible cost per year of service. Made of special formula steel and Super-Zinc—protected against rust by a heavy and closely bonded coating of zinc that will not flake or peel. Every rod guaranteed.

Build the fences you need this fall; less interference with farm work; steel posts drive readily; much forage food now wasting in the fields can be turned into meat, and cash.

A dealer near you has the types and styles of Pittsburgh Fences you want. Look for the "Pittsburgh" brand for better fence, barbed wire, gates, steel posts and wire nails.

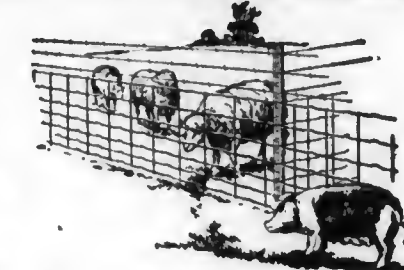


The standard stock fence on eastern farms. No. 11 gauge Pittsburgh Perfect, 45 in. high. Its extra durability at no extra cost explains its popularity. Send the coupon for catalog.

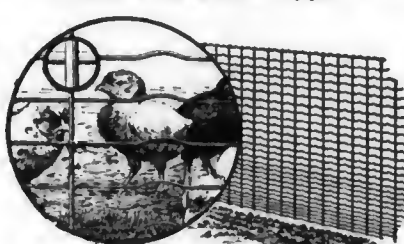
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Pittsburgh Perfect Chicken and Rabbit Fence—stronger, costs less, lasts longer than netting. Lower wires only one inch apart. Get details in catalog. Send coupon.



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shows many new items

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Pittsburgh Steel Co.

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Buy your metal roofing, shingles, Spanish tile, siding, etc., DIRECT from the world's largest manufacturer of sheet metal building materials, at BIG SAVINGS. Thousands of satisfied users. We own our own rolling mills. Enormous output insures lowest production costs. Factory-to-consumer plan makes prices rock bottom. You get the benefit. Many varieties. Edwards metal roofs last longer, look better. Resist rust, fire and lightning. Roofing, shingles, etc., of COPPER, BEARING STEEL at special prices. This steel stands the acid test. Outlasts the building to which applied.

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Low in cost. Easily erected. Permanent. Good looking. All types and sizes to suit your purse and purpose. Now's the time for action. Write for Roofing and Material Book No. 131 and for Garage Book No. 132. **EDWARDS MFG. CO.** 104-11031 Butler St., Cincinnati, Ohio

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GOMBAULT'S CAUSTIC BALSAM



The safe, reliable liniment, counter-irritant or blister for VETERINARY and HUMAN treatment. Used and well known for over 50 years. ACCEPT NO SUBSTITUTE. **SCHNABEL MEDICINE CORP., Sole Distributors** 40 East 34th Street, New York

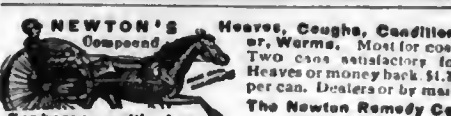
for Sprains and Bruises

ABSORBINE reduces thickened, swollen tissues, softens, fills tendons, soreness from bruises or strains. Does not blister, remove hair or lay up horse. \$2.50 at druggists, or postpaid. Horse book I-B free. Write for it today.

Read this: "Horse had large swelling just below knee. Now gone; has not recurred. Horse good as ever. Have used Absorbine for years with great success."

ABSORBINE

W. F. YOUNG, Inc., 354 Lyman St., Springfield, Mass.



For horses, cattle, dogs

The Newton Remedy Co., Toledo, Ohio.

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MAKES AN Even Distribution THEREBY

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EVEN DISTRIBUTION is possible only when beaters deliver an even stream to the distributor. The "Non-Wrap" Beaters of this spreader positively assure complete pulverization and regular, even feed no matter how heavy or light the application.

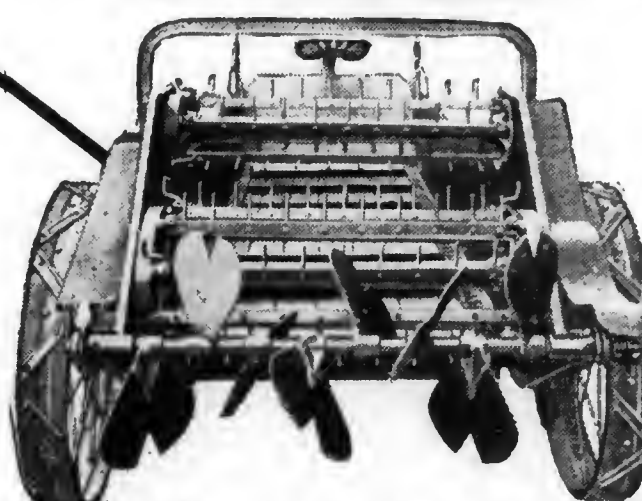
Uniformly increased fertility brings more money to the farmer. He spends less for labor, saves time, and hauls manure when it is most convenient, for no matter what kind or condition of the manure, the "Non-Wrap" makes an even distribution.

It is distinctly to your interest to know about the "Non-Wrap" Spreader. Write today for Big Bulletin.

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Greater Egg Profits all Winter through Nest Box Notes

CELO-GLASS

YOUR hens will lay all winter if you give them a fair chance. . . . Install Cel-O-Glass in your houses so they can get the benefits of ultra-violet sunlight. Science has proved that ultra-violet rays increase egg production. More winter eggs mean greater profits—when prices are highest.

Poultry Health through CEL-O-GLASS

The ultra-violet rays of the sun which pass through Cel-O-Glass are the health rays. They cannot penetrate glass, wood or soiled cloth curtains. They kill bacteria instantly, prevent the spread of disease, induce better assimilation of minerals which increases egg production, prevent laying paralysis and enable breeders to store up

Many Winter Uses for CEL-O-GLASS

Cel-O-Glass is durable because it is made on a tough wire mesh base. Use it for preventing stiff legs in swine, for bringing the disinfecting qualities of pure sunlight into dairy barns and other farm buildings. Fine for porch enclosures and storm doors and windows. Big 64-page book "Health on the Farm" shows you how and where to use Cel-O-Glass. Mail coupon for your copy today. If your dealer does not carry Cel-O-Glass write for name of nearest dealer who does. Acetel Products, Inc., 21 Spruce Street, New York, N.Y.

CELO-GLASS

Acetel Products, Inc., 21 Spruce St., New York

Gentlemen: Please send me your book "Health on the Farm," postpaid and free of charge.

Name _____

Street or R. F. D. _____

Town _____ State _____

By R. L. Scharring-Hausen

A CORRESPONDENT from Pennsylvania who had turkeys suffering from what was apparently blackhead writes that he effected a cure in at least one case by dosing a sick bird with liver pills made for human use. The pills contained four grains reduced iron and one-half grain quinine each, and he gave the sick turkey one each day until recovery. These pills are said to be inexpensive, and I pass this information along for any one who has the blackhead in his turkeys. I would be glad to hear from any who use these pills, as to whether they get results.

The pullets should all be in their winter quarters by the end of October at the latest. Frosty nights and cold rains are bad for their health, and in the laying houses they will eat more than they do on range and develop better

A bumper corn crop next year depends on your field selection of seed this fall. Extremely early and unusually late plants should be avoided. Broken-over stalks may be affected with the root rot fusarium. That the ears be of average height on the stalk and medium length of shank is also of importance when selecting the seed.

ter. Once pullets are housed they should be kept in.

Newly housed pullets sometimes have their own notions as to the best place to spend the night, and will roost on the window sills, hoppers, water pans, or on top of the nest boxes instead of on the perches where they should. These independent birds are liable to catch cold from being exposed to drafts, and in addition make themselves a nuisance. It is a good idea to go through the houses after dark and place stray birds on the roost, as they will learn to go there themselves after a few times. Better still, arrange the house so that they will have to roost on the perches, by making slanting tops to the nest boxes and other fixtures and building the windows so that there is no sill on the inside for them to rest on.

We hauled the chaff from the threshing out to the pullet range in the orchard so that the young birds could scratch it over and get the grain that had gone through the machine.

My trapnest flock is now on its last month, with many of the birds over 200 eggs and the birds with the best records still laying very well.

I know of several poultrymen who started in the business several years ago and did very well, who are now having an increasing amount of trouble with various poultry ailments. These men are all good careful farmers, which just goes to show that unceasing vigilance in regard to sanitation and other requirements is necessary to keep a flock up to the mark over a period of years.

Hens that have completed a year or more of laying are now molting or about to, and require good care and feeding from now on instead of the neglect which is often their lot. It is a strain on the bird to produce new feathers and fight the cold at the same time, and old hens which are to be used as breeders or layers next spring must be fed liberally.

Making trap-nest records on AMCO FEEDS



R. D. No. 2, Ruffs Dale, Pa.
August 17, 1928

AMERICAN MILLING COMPANY
PEORIA, ILL.

We find AMCO EGG MASH has given us as good results at less cost than any brand of mash we have ever used. We have run tests on other feeds time and again and AMCO has given us the most profit in every case. We feed AMCO EGG MASH WITH ALFALFA LEAF MEAL to our birds in winter or in confinement, and AMCO EGG MASH to the birds on range and in summer.

The birds in the picture are being fed Amco Egg Mash and Amco Scratch. They have a fenced run for part of each day. We fed these birds another mash up to March 1 and then changed to your feed. This picture was taken about August 1 and the record average for the five months on Amco Egg Mash was 109.3 eggs each. The average on the flock is now 153 eggs each, and the trap-nest records are being made under Official State Supervision on Record of Performance Work. The most of these birds will easily go over the 200 mark. The eggs from these pullets were hatched and showed good hatchability and the chicks lived well. Have now the finest bunch of pedigreed cockerels out of these hens I have ever raised. Of course the young stock get AMCO, too.

BAIR'S POULTRY FARM
(Signed) Harry A. Bair

Your Amco Agent can supply you.

AMCO

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AMERICAN MILLING COMPANY
EXECUTIVE OFFICES, PEORIA, ILL.

Plants at:
Peoria, Ill.; Omaha, Neb.; Owensboro, Ky.
Albany, N.Y.; Portland, Me.; Watland, Wyo.
DIVISION OFFICE, MUNCY, PA.

Comfort tested by hundreds of miles of tramping—

THIS Hood Red Short is built to hug heel and instep—to conform to the foot and leg lines and so move with the foot—not chafe against it.

For men who must trudge their daily miles—that's comfort!

Heavy duty tire tread soles for many seasons' wear. Uppers of the red rubber that only Hood seems to know how to build—non-checking—non-cracking. The Hood Red Boot is a man's boot for toughest going.

Made also with hip, sporting and storm king tops.

The Red Boot is built by the makers of that famous red rubber 4 buckle—the Kattle King.

Made by HOOD RUBBER COMPANY
Watertown, Mass.

MONTCALM GAME FARM

MAMMOTH BRONZE TURKEYS

Montcalm Game Farm is in a better position than ever to furnish superior breeding stock for next year. Our birds are early hatched, well grown and are the best, heavy, sturdy kind so typical of the best of the breed.

Our stock reside in vigor, strength of bone and beauty of its well developed plumage. We have superior young toms, well matched by their outstanding unrelated birds for foundation flock.

Our guarantee sale delivery of birds or adjustment will be made at full value.

Write for catalog and prices.

MONTCALM GAME FARM
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Phoenixville, Pa.

WE NEED NEW LAID

White and Brown Eggs

direct from the farm. Top net value delivered to you. Our 50 year record is our guarantee to you.

ENYARD & GODLEY, INC.,

171 Duane St., Est. 1845 New York, N. Y.

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BARRER ROCKS and R. I. REES.

Just what you want for profitable fall broilers. Send for low prices and Catalog.

Brookfield Poultry Farm, Box 171, McClure, Pa.

Wanted—To buy early Barred Rock pullets and Bronze Turkeys.

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White Leghorn Cockerels

From Imported Barred stock with pedigree of 272 to 314. March hatched, large, vigorous, farm range birds. \$4.00 each, to for \$20. Shipped on approval.

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S. C. BROWN and W. LEGHORN, 100 Egg, Thompson, Pa.

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200 MARCH-HATCHED Barred Plymouth Rock Poultry for broilers. Turkeys, White, State and Spratt strain, all hatched from record lines. Also W. P. Rocks, pullets and cockerels. Write for catalogue, pullets and cockerels. Get our prices now.

Joe A. Blum, New Washington, Ohio

TURKEYS. Narragansett, G. Jones, 500 each, White Wyandotte, 100 each, May, each. White Wyandotte, 100 each, May, each. May hatch. JOHN OATES, R. 2, Helena, Ohio

GIANT BRONZE TURKEY TOMS. Massive bone, rich copper bronze plumage. From our National winners. Double free.

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8 x 8 ft. Dry Front House \$49

Portable Poultry Houses

Airy, Light, Sanitary LAYING HOUSES

Many to put up; strong and durable. Widths, 8, 10, 12, 14 and 16 ft.; lengths up to 100 ft. Each has Dry Front House, slatted above, with roosts, nests and dropping board. \$40.00, f. o. b.

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POSITIV-LAY supplies needed calcium carbonate, 99.9% pure always. It is used and recommended by 21 State Poultry Experts in chick and laying mash. Promotes growth and health, gives more and better eggs and helps prevent leg weakness in chicks and chicks in adult birds. If your dealer is out of it, \$1.25 and his name will bring you 100 lbs. fresh pure Vit. mineral facts also come at cost.

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HIGHEST PRICES CHECKS SENT DAILY

Olden Live Poultry house in New York City established 1880 offers an unlimited order for your live poultry. While no shipping fees and free holiday calendar folder.

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MAKE HENS LAY

Let our Wacker's C.F. Tablets do the work. They give food in the water. Then get more and better eggs and help prevent leg weakness in chicks and chicks in adult birds. If your dealer is out of it, \$1.25 and his name will bring you 100 lbs. fresh pure Vit. mineral facts also come at cost.

STOP THAT ROUP

Wacker's Food Tablets positively stop roup. Enter today. 600, \$1.00—1200, \$2.00—states which C. O. D. Orders must be cashed. FREE booklet on Poultry Diseases. BOX 157-44

Wacker Remedy Co., 1000 N. 1st St., N. D.

By C. O. D. Wacker's of Canada, N. D.

FALL CHICKS

of BEST QUALITY.

and up. Postage paid and free arrival guaranteed.

Fall chicks are best for profitable broilers, winter meat and spring eggs. BUY NOW and enjoy the profits. Mature broilers at right prices, 40 breeds to offer.

PEKIN DUCKLINGS every week beginning Oct. 15th. \$20 a 100. Catalog free.

NABOB HATCHERIES, Box F-29, Gambier, Ohio

Nest Box Notes

By R. L. Scharring-Hausen

A CORRESPONDENT from Pennsylvania who had turkeys suffering from what was apparently black-head writes that he effected a cure in at least one case by dosing a sick bird with liver pills made for human use. The pills contained four grains reduced and one-half grain quinine each, and he gave the sick turkey one each day until recovery. "The pills are said to be inexpensive, and I pass this information along for any one who has the black-head on his turkeys. I would be glad to hear from any who use these pills, as to whether they get results."

The pullets should all be in their winter quarters by the end of October at the latest. Freshly hatched and cold rains are bad for their health, and in the latter months they will eat more than in the previous months and develop fast.

A bumper corn crop next year depends on your field selection of seed this fall. Extremely early and unusually late plants should be avoided. Broken-over stalks may be affected with the root rot fusarium. That the ears be of average height on the stalk and medium length of shank is also of importance when selecting the seed.

Newly-coupled folks sometimes take their honeymoon to the beach place, to avoid the night and will roost on the beach shells, seagulls, water pipes, etc. In fact, nest boxes are used a lot on the porches where they should have independence. Birds are habitually very cold, men being exposed to drafts, and in addition like themselves arranged. It is a good idea to go through the houses, after dark, and place stray birds on the roosts, as they will learn to go there themselves after a few times. Later still, arrange the boxes so that they will have to roost on the porches by making slanting steps to the nest boxes and other nooks and building the windows so that there is no soil on the inside to them to roost on.

We hauled the stuff from the threshing machine to the pulled range to the creek and sold it. The young birds couldn't fly in a row and yet the grain that had been through the machine

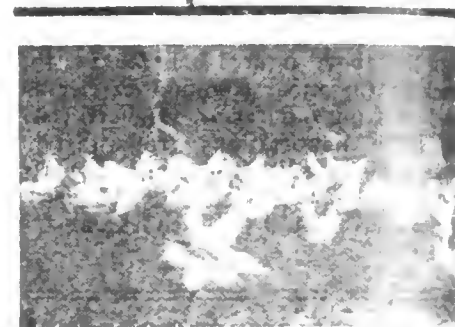
My trapnest flock is now quite large, with many of the birds over one year old and the birds in the box are still doing very well.

I know of several politicians who served in the Senate several years ago and have died who are now being prosecuted and convicted of the crimes of the defendants. This

Hens that are selected to have chicks hatch from new technology

and he and her to feed and to
teach them how to use instead of
suffering such a cruel death. He
is strong enough to produce new
teeth and hurt the child at the same
time, and children will learn to be
a breeder of rays next spring
to be fed blood.

AMCO FEEDS



R. D. No. 2, Ruffs Dale, Ill.
August 17, 1925

AMERICAN MILLING COMPANY
BICHIA, ILL.

We find AMCO EGG MEAL has given us as good results at less cost than any brand of mash we have ever used. We have run less on other feeds time and again and AMCO has given us the most profit in every case. We feed AMCO EGG MASH WITH ALFALFA LEAF MEAL to our birds in winter or in confinement, and AMCO EGG MASH to the birds on range and in summer.

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Record of Performance Work.
The most of these birds will easily
go over the 200 mark. The eggs
from these pullets were hatched
and showed good hatchability and
the chicks lived well. Have now

the finest game cockerels out of these hens I have ever raised. Of course the young stock get AMCO, too.

(Signed) Harry A. Bair

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AMERICAN MILLING CO. ST
EXECUTIVE OFFICES: PHOENIX, ARIZ. 11
Plants at: 13
Ft. Worth, Ill., Omaha, Neb., Ower
A Tulsa Plant at
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DIVISION OFFICE, MUNICH 14

THIS Hood Red Short is built to hug heel and instep—to conform to the foot and leg lines and so move with the foot—not chafe against it.

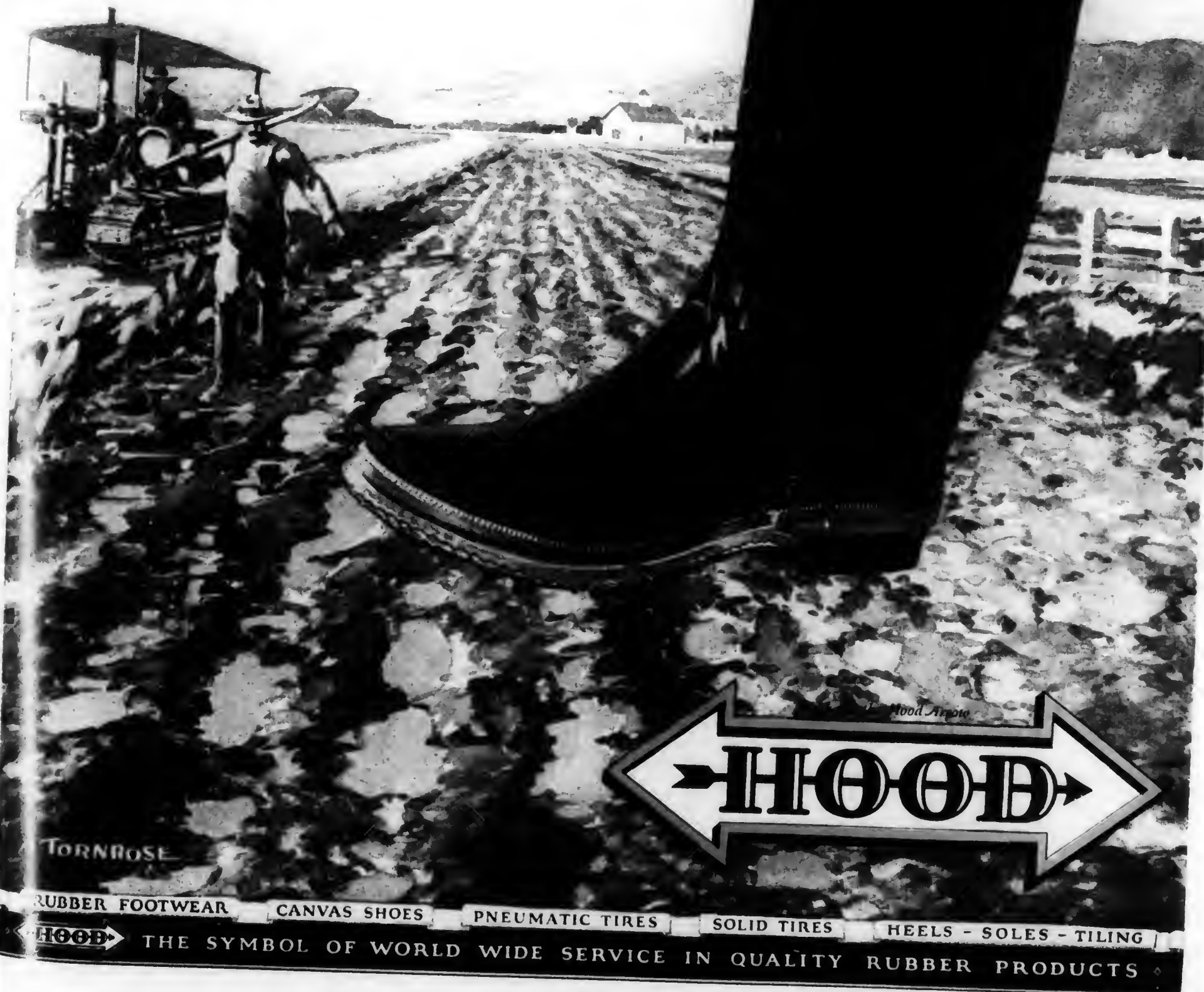
For men who must trudge their daily miles — that's comfort!

Heavy duty tire tread soles for many seasons' wear. Uppers of the red rubber that only Hood seems to know how to build — non-checking — non-cracking. The Hood Red Boot is a man's boot for toughest going.

Made also with hip, sporting and storm king tops.

The Red Boot is built by the makers of that famous red rubber 4 buckle—the Kattle King.

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Two bull calves three months old.
J. H. PHILLIPS, Delmar, Del.

Guernsey For Sale. A few young heifers and bulls. Registered, tuberculin tested. Come and see them. Orton Rough & Son, Smithton, Pa.

Reg. Jersey BULL ready for service. Accredited Herd.
C. F. & M. W. BIGHAM, Gettysburg, Pa.

Registered Holstein Heifers, sired by a son of an 1,100 lb. cow. Age three months and older. Also bull calves. Pedigrees and prices on request. Accr. herd, Graetz Farm, Inc., R. 1, Clinton, Pa.

FOR SALE. 20 Pure-bred Holstein cows, due to freshen this fall. A great producing herd. Fully accredited. Gillette Bros., Uister, Pa.

FOR SALE. Foundation Ayrshires of the best blood lines. Any age and both sexes. Herd fully Accredited. Geo. E. McConnell, Wallington, Ohio

Ayrshire Bull calves from Grand Champion stock.
BARCLAY FARMS, Rosemont, Pa.

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Special Fall Prices on high-class breeding Turkeys, Geese, Ducks and Guinea, write your wants and for mailing list. Pioneer Stock Farm, Tafford, Pa.

AWARDED GRAND CHAMPION SWEEPSTAKES young pen Buff Rocks, over all breeds, Ky State Fair, Grand Chick, finest color and size. Brown Chinese Geese and Wild Mallard Ducks. J. C. Clipp & Sons, Box D, Campbellburg, Ind.

SWINE

Reg. Hampshire Swine, all ages, double trotted service boars. Write your wants. Woodside Stock & Poultry Farm, Summit Point, W. Va.

LARGE BERKSHIRE—Service boars. Gilt. Bred and unbred. Pigs unrelated. The very best. GEO. W. DUEZEL, South Zanesville, Ohio

Multiple Hitches



THE practicality of big teams is in no way limited to the big open spaces, as the idea of using more horse power and more efficient power from the same horses, with the elimination of man power, is proving successful even on the small farms where only a few horses are

kept. I would think that the idea would be especially valuable in the South, where so much plowing and other farm work is done by small one-mule plows manned by a negro driver. I have seen as many as a dozen such one-mule, one-man outfits working on a southern farm. Of course in some parts of the South where the farms are hilly and the fields small the one-mule plow may be the thing, but many farms have fields of sufficient size to warrant an investigation of the big hitch idea. And the whole thing is very simple and easily managed when once adopted, as many farmers all over the country are finding out.

The success of the big hitches depends on the proper construction of the eveners and doubletrees as much as in the actual driving of the horses. Unless the hitch is mechanically correct, naturally maximum power for drawing the heavy loads is impossible. A booklet published by the Horse Association of America explains just how the hitches should be made for any number of horses in the big team. It also shows photographs of the teams at work on various farms throughout the entire country.

DAVID GRAY.

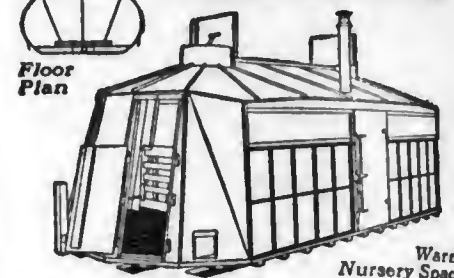
A Prolific Show Winner

A 13-year-old ewe which has raised 17 lambs, been shown 115 times and won 107 first, seven second and one third prizes is the record reported by the secretary of an English Sheep Breeders' Association for a sheep of the Herdwick breed. This ewe started on her show-winning career in 1920, when shows in her locality were resumed after the war. She began by winning the championship and retaining it for three years, and she produced a daughter which is carrying on the tradition in that she has been champion of the local show five times in succession. Probably some readers in this territory have sheep with comparable records, but are too modest to announce it. If so this is a good time to trot them out.



Miss Wanda McClung and her prize-winning baby beef at the Baby Beef Show of the State Four-H Round-up at the Lewis County Fair, W. Va.

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THE lives of little pigs depend upon warmth and light during the early weeks. Ross Houses provide ideal nursery quarters. Length 21 feet, ends near-round, heavily reinforced thru-out—easily erected. Two roof ventilators—four entrance doors. Roomy—four large pens with two part doors—wood partitions. Sanitary, sunshiny; entire side made of glass, and glass fabric supplying violet charged light. Canopied stove at center of side wall—easily get-at-able—warmest spaces can be entered only by the little pigs.

Easy terms—Buy now, pay later
Money-making proposition for agents
ROSS Cattle CO., Springfield, Ohio
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Check items you want, we will send illustrated folders and full information. Mail today.

Brooder Houses □ Hog Houses □
Silos □ Cribs □ Cutters □ Mills □

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SHEEP

Shropshire Rams from imported and champion sires. Bred eyes later.
A. F. MERRELL, Geneva, Ohio

SHROPSHIRE RAMS—Yearling rams sired by imported Buttar ram. They are big, strong rams and wonderfully covered. This Buttar ram sired the First Prize Pen 3 yearling ewes at this State Fair, 1928, and many other winners. Write for details. All rams guaranteed breeders.
Hyllmeda Farm, Fred R. Cook, Mgr., Beaver, Pa.

Reg. Shropshire Sheep, Yearling rams, ram lambs, a few ewes of different ages. Well bred and well lamb. Price reasonable.
D. D. MOSE, Salisbury, Somerset Co., Pa.

Registered Shropshire ewes and rams, the wool and nutrition combination.
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Results of tests conducted on our Research Farm at Ashland, Ohio

Why

one lot of shoats gained $\frac{1}{3}$ faster than the other lot

THESE two lots of shoats were placed on test. Both lots had all the ear corn they would consume and were given slop twice a day. The slop was composed of 8 parts middlings, 1 part tankage, 1 part oil meal, and water.

There was no difference in the feeding of these two lots of shoats except that one lot received

Dr. Hess Improved Stock Tonic in the slop twice a day.

At the end of 71 days, the Tonic group reached an average weight of 202 lbs. each. The average weight of the Non-Tonic group at that time was 157 lbs. each.

There follows a table of comparative figures:

	Tonic shoats	Non-Tonic shoats
Gain in 71 days	891 lbs.	624 lbs.
Average daily gain	2.1 lbs.	1.5 lbs.
Feed required per 100 lbs. gain	295 lbs.	419 lbs.
Cost per 100 lbs. gain	\$5.48 (inc. Tonic)	\$7.43

The Non-Tonic shoats were continued on the same ration until they reached an average weight of 200 lbs. each. This required 29 days additional time and \$19.11 worth of feed.

The Tonic controlled the intestinal worms. It supplied minerals necessary to build bone and body tissue.

The Tonic kept the appetite constantly on edge, and the bowels regular. It kept the shoats thriving every day from the first day to the finish.

That's why the shoats that had Tonic required only 295 lbs. of feed, while the shoats that did not have Tonic required 419 lbs. of feed to produce each 100 lbs. gain.

That's why the shoats that had Tonic produced 100 lbs. of pork at a cost of \$5.48 (including

Tonic), while the shoats that did not have Tonic required \$7.43 worth of feed for each 100 lbs. of gain.

That's why the shoats that had Dr. Hess Improved Stock Tonic were ready for market 29 days earlier than the shoats that did not have the Tonic.

Remember, Dr. Hess Improved Stock Tonic does not take the place of feed and no feed can take the place of Dr. Hess Improved Stock Tonic. No additional minerals are required when Dr. Hess Improved Stock Tonic is fed.



These are the same hogs that appear above to the left 71 days later. These shoats gained 891 lbs. in 71 days. They averaged 2.1 lbs. gain per day.



These are the same hogs that appear above to the right 100 days later. These shoats required 100 days to gain 882 lbs. They averaged 1.5 lbs. gain per day.

Dr. Hess Improved Stock Tonic

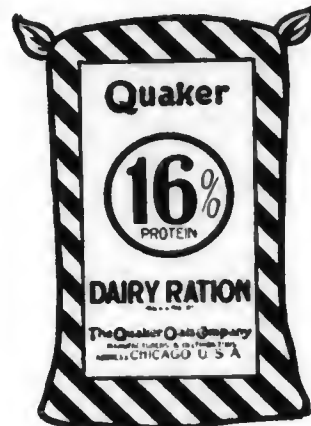
Appetizer, Worm Controller and Mineral Balance
—all combined in one product

Adopt our plan of continuous feeding of this Tonic for at least 60 days, and see what it means to you in increased thrift and gains. It will require 2 1/2 lbs. of Tonic for 60 days and cost but 25c for each 100-lb. shoat. See your local Dr. Hess dealer today.

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No Scoop Shovel can equal this Great Feed



Essential minerals in just the right form and proportion—and molasses in dry form—are contained in this feed. Palatable, digestible and profitable!

LAY away your scoop shovel for the winter. You can't hope to mix any ration so good for your herd and bank account as Quaker (16%) Dairy Ration. Quaker has gathered the choicest ingredients, and with scientific formula and method prepared for you this *proved ration* that is rich in essential nourishment, and minerals, that the cow must have to give maximum milk. Quaker Dairy Ration is always uniform, always fresh, always ready just as it comes from the sack. Why waste your time, your labor, why risk your herd when a supply of Quaker Dairy Ration is waiting for you at a nearby Quaker Dealer?

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BUY THE FEEDS IN STRIPED SACKS

Farm & Dairy

By L. W. LIGHTY

QUITE a number of people on the farm I know are not interested in cows except in keeping a few so as to have a good supply of milk, cream and butter for the home family. Here I know the keeping and sustaining is reciprocal in that the cows help to keep the family as well as being kept. But frequently I talk with men who tell me they keep ten, fifteen or more cows and often unfortunately they do so in the full meaning of the expression.

What does it take to keep a cow? The big item is feed. Investigators tell us it takes 12 to 15 pounds of timothy hay and three to four pounds of bran

W. Va. Dairy Meeting

Dairymen from all parts of West Virginia will attend the State Dairymen's Meeting at Martinsburg, W. Va., on November 8 and 9. They will visit some of the best dairy farms in the state and tour the historic Eastern Panhandle.

to keep a cow when she is doing nothing in particular but eating. Ten to 12 pounds of mixed hay and four to five pounds of corn-and-cob meal will also do the trick. Quite a few "keepers" make a small addition to this ration which enables the cows to give some milk. It is also a fact that many cows are not possessed of profit-making qualities regardless of feed and care, but at the same time many cows would make a profit if they had the material to do it with.

But remember, the cow takes the first toll from the feed for her living. She makes a levy on you which is rightfully called "keeping the cow." But from this point on where there are possibilities, the cow may help to keep you. She may make you good money and help to improve the fertility of the soil. But first we must select the cow with possibilities and discard the one that does not possess the powers to turn feed into dairy profit.

In the average community where the cow-testing association has not been seriously considered fully a fifth of the cows belong to the boarder variety regardless of care and feed. The keeping of these cows is an injustice to the other cows and also to the owner and his family. At present beef prices they will very fully bring their worth and lots more than they are worth to keep as milkers because that is a losing proposition at best.

Cows Which Can Keep You

Profitable cows may be pure-breds, grades or just common cows, but they are selected. A cow can make milk when given feed and she is dependent on the quantity and quality of feed, so the matter is up to the feeder and manager. Time a cow may give a very short time pull down her own flesh and fat to make milk, but that soon ends. The cow is especially built to utilize great quantities of rough feed and every wise cow feeder makes provision to have plenty of this kind of feed. Hay, silage, stover and straw are the great roughage standbys. On the market they cannot be sold at any profit at all, but by way of the cow they may be marketed very profitably.

The most outstanding feed in economical dairy feeding is feed the cow all the roughage in variety she will eat. This phase of feeding cannot be over-emphasized.

Many feeders think only of grain.

USE FEEDS CONTAINING OBERCO
FRED YOUNG
SOUTH CAROLINA DAIRYMAN

Says: "Cows known to be regular aborters have delivered normal, healthy calves since they were fed"

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ABORTION is the most costly and discouraging disease confronting dairymen. Most abortion is caused or permitted by incorrect feeding. Too much of certain proteins or too little of certain minerals are the most common causes. High breeding cows constantly give off more minerals than can be fed them in ordinary grain feeds. Their body supplies of minerals are seriously depleted and they drop their calves to save themselves. Our booklet, "Minerals are necessary, why OBERCO is the most efficient and economical mineral mixture. Write for Free Booklet 192.

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Broadwater Xenophon

A High-Class Line-Bred

May Rose Bull

Dropped December 25, 1927. Sired by Gold Raider of Lick 15, an A. B. bull whose dam and sire's dam have official records which average 11,571.6 of milk. 22% of fat. His dam is a superb milk producer. She is now on test and in 21 days has produced 1,169.9 of milk, 17% of fat in class A.

The average record of Xenophon's dam will be practically 11,000 of milk, 22% of fat. This youngster should do much to improve production and type in a good herd of Guernseys.

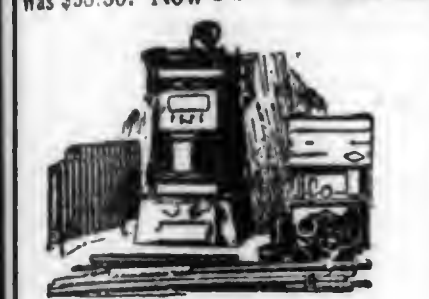
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Includes: Washbasin, Porcelain Toilet and Sinks, Bathtub, and Fire-Proofing Materials.
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Belleville, Pa.

That is expensive feed and we want to use as little as we dare to get the most profit. By securing a fine quality of roughage in variety we can save grain. When we have an adequate supply of roughage we can be and are liberal with it and this pays. Plenty of people would better keep a smaller number of cows so the roughage will be abundant for those cows kept. If the quality is good the consumption will be increased.

It seems like yesterday when I put the fine-cut crushed stover in a tight compartment and moistened it with boiling water and allowed it to steam there for twelve hours. What a fine aroma it had when put in the manger and how the cows relished it with the grain and salt over the top. This feed will hardly sell for \$2 a ton on the farm, and see what the cow makes of it.

The Profitable Grain Ration

It is an important question with every one how much and how little grain to feed the milk cow to realize the largest net profit. Each cow has her capacity in being able to use a certain amount of grain in the making of milk and keeping in a perfect physical condition. When we feed her more than this she will lay part of it on as extra weight and the rest will be wasted. If we do not feed her up to her capacity she will not make the profit she is capable of making.

Many of us must admit we do our grain feeding in a rather haphazard manner. How often I have watched the process of "graining" the cows and it was a measure full for each cow or it was a large pail full of feed scattered along the trough from end to end and each cow went at it like the pigs in the trough. This may do for steer feeding but it is surely wasteful in feeding the milk cow. You may save a

Better Sires

When the N. Y. Central Better Dairy Sires Train starts on its tour of Pennsylvania on October 30 to November 10 it will carry 20 Guernsey, 20 Jersey and 15 Holstein sires. They are all young, pure-bred and of high quality. At all times there will be from eight to fifteen head on this train from which to make selections. A total of 100 head is being consigned to the train by breeders of Pennsylvania and nearby sections.

nickel's worth of time and lose a nickel's worth of milk.

The thing that really pays is to gauge the capacity of the cow ten days or two weeks after she has calved. She is giving 40 pounds of milk and this calls for 13 pounds of feed. Give her 15 pounds of feed and ask her to produce 45 pounds of milk and if she has the capacity she will do it. Then go up another step with the quantity of grain and if she follows you in production take another step until the milk increase does not follow and you have her to her capacity.

Then when she drops in milk flow again follow in the quantity of feed by a proportionate reduction. If you continue the larger quantity you have an over-fat animal and wasted grain. Also consider that a large cow needs a little more feed than a small one in proportion and a cow that gives milk testing high in butterfat needs more than a low testing one considering the quantity of milk yielded. This manner of observation and feeding is not fussy or technical but simply good common sense business practice. Had I not done it for years I surely would not recommend it to others.



How To Have the Barn You've Always Wanted—Send the Coupon

You know the kind of barn you'd like to have—a barn equipped to save you steps, chore work and drudgery—a barn that makes your stock 100% comfortable. You will be astonished at the ease and money-saving with which you can have such a barn—if you use Louden Barn Plan help—as many thousands have. Whether you are going to build or remodel, fill out and mail the coupon below. Without cost or obligation, Louden experts will send you, postpaid, blueprint suggestions showing you ideal floor plan arrangements with dimensions—location and size of supporting columns—proper floor levels—types of roofs—how to include everything you should have, with greatest economy. Just mail the coupon.

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Why water your cows at the outside ice-water tank? Louden Water Bowls increase milk flow—will pay for themselves and earn you extra profits before spring. Put them in now—get full benefit of them this winter. Louden Manure Carriers save time and ends barn-cleaning drudgery. Take care of more cows. Do it easier this winter. Big tub rolls out as much as you could wheel in five trips. Sanitary Louden Steel Stalls and Stanchions, correctly designed for true pasture comfort. Profit makers in increased milk yield. High carbon open heart steel. Strongest. Most economical. Installed in old or new buildings. If you are planning to ventilate your barn—creamery—hog-house—poultry-house, send for Louden Ventilation Book. Gives latest facts on ventilation. A big live subject. Complete with pictures and diagrams. Check the coupon.

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110 OHIO GUERNSEYS AT AUCTION

13th STATE ASSOCIATION CONSIGNMENT
Wooster, Thursday, October 25, 1928
Attractive animals. 20 Springing heifers, 9 fresh 2-year-olds, 29 cows, and 4 desirable young bulls with A. R. dams. Catalog will give complete breeding history of all females. Consignments selected to meet varying financial demands.

THE F. E. BONE & J. W. PATRICK COMBINATION DISPERSAL SALE

Wooster, Thursday, November 8, 1928
Animals comprising the entire herds of F. E. Bone of Fredericktown and J. W. Patrick of East Liberty. These T. B. tested herds, free from abortion, were founded fifteen years ago. Close selection has been followed. Mr. Bone's herd averaged 306 lbs. of fat in cow-testing association. 7 of his consignment are excellent young bulls. 14 of Mr. Patrick's herd will be fresh just before the sale.

These Wooster sales offer an exceptional opportunity to buy good clean Guernseys. Write for Catalogs Sales Management
The Ohio Guernsey Breeders' Association, Wooster, Ohio

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ARE YOU GETTING ONLY \$1 FOR \$15 WORTH OF YOUR TIME

A dairyman gets just 1/15 as much net return on the time he spends caring for a cow producing 150 lbs. of butter fat a year, as on the care of a good producer handled according to modern methods of feeding management. These figures are not based on forced records, but on farm conditions with cows milked twice a day and receiving ordinary herd care.

Do you know how many of these time-wasting and feed-wasting cows you have in your herd, and how to feed the good ones for this higher return? A remarkable new book on feeding management, sent free by the Linseed Meal people, tells how to single out the profitable cows and boost your earnings. Not a discussion of home mixed rations vs. mixed feeds. Either will do the job, if it contains the "real stuff" and you study feeding management. Look on the label of mixed feeds for Linseed Meal—one sure sign of quality ingredients.

To farm women: Poultry rations included.



L. M. E. C. 1923

17th PUBLIC SALE BRADFORD COUNTY REGISTERED HOLSTEINS
SALE PAVILION, TROY, PA.
FRIDAY, OCTOBER 26th, 12:30 P. M. 1923
65 45 Cows Fresh or Due Soon—12 Heifer Calves and Yearlings—8 Bulls
Federal Tuberculin Tested Cattle, most of which are Fully Accredited 60-Day Retest Privilege. Many cows and many dams of the entries in this sale have Cow-Testing Association Records. For catalogue apply to
R. H. FLEMING, 315 Main Street, TOWANDA, PA.
A BREEDER'S SALE—29 CONSIGNORS

SILOS Special Direct from Factory Prices
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Pure-bred Sires Paid Crawford County Farmers

CRAWFORD County's Fourth Annual Fair and Cattle Show held at the Conneaut Lake Fair Grounds, October 2-5, went another step toward the revival of the old Crawford County Fair, one of the best in the state. This year's fair was the largest and best of the four held in the last four years under the direction of the Crawford County Dairy Improvement and Sales Association.

The revived fair started as a cattle show and cattle remained the feature of this year's event. Sharing interest with the cattle were the exhibits and demonstrations arranged by Crawford County's vocational schools.

Crawford county's supremacy as a dairy cattle breeding center dates back to the importation of 14 pure-bred bulls eight years ago. These animals were backed by high production records and as bull association sires they had a profound influence on the quality of the county's cattle. Five years after their importation a survey revealed that 70 of their sons, from pure-bred cows, were being used as herd sires on Crawford county farms.

Pure-Bred Bulls Imported

Another importation of pure-bred bulls was made this year; these animals were on sale during the fair. The group consisted of 16 bulls, under a year old, from good Wisconsin herds. They are especially adapted to the needs of breeders who have never before purchased a pure-bred sire. Those not placed during the fair will be sold later through the Dairy Improvement and Sales Association.

The Rotary, Kiwanis and Lions Clubs of Meadville entertained leading farmers of the county at a banquet held at Conneaut Lake on Wednesday evening. As part of the program vocational students of the Conneautville and Cambridge Springs schools presented plays which set forth very dramatically the parts played by calcium, nitrogen, phosphorus and potash in crop development. Music furnished by the Linesville Vocational School Orchestra, under an 11-year-old leader, surpassed that of many professional organizations.

Pleads for Herd Improvement

The after-dinner speakers included Professor W. F. Hall, of Penn State, who made a plea for a favorable vote on the State College bond issue amendment. L. H. Dennis, director of vocational education in Pennsylvania; Secretary of Agriculture Charles G. Jordan, and R. H. Olmstead, Penn State Dairy Extension Specialist.

Mr. Olmstead warned Crawford county dairymen that they must continue the improvement of their herds if they are to hold the markets which now buy their pure-bred stock. Pennsylvania leads all states in the number of her pure-bred sire associations, some counties having more than many whole states. The state total is now about 80 but there will soon be 100 associations. Crawford county dairymen have sold cattle worth \$300,000 through their sales association in the last four years, and perhaps four times as many through other channels.

Mr. Dennis announced that \$45 had been awarded to the Linesville school's girls demonstration team as first prize for the demonstration they staged at the fair. The "Townville girls" team placed second. In the boys' demonstration contest the Conneautville team won first place. "Townville" second. John Boylan of Cambridge Springs won \$20 for his vocational project.

A Genuine Fox Gun —Built to Last a Lifetime for only \$36.50



EVERY farm home needs a shotgun—and it should be a good gun. It's just as sound economy to buy a good shotgun as it is to buy good tools. The difference in service and satisfaction far outweighs the difference in price.

Now that the price of the FOX-STERLING-WORTH is down to \$36.50, there's no reason why every farm home shouldn't have a really fine shotgun.

This is the same gun that has been for twenty years a favorite among men who know a FOX GUN, which has caused FOX GUNS to be known as "The Finest Guns in the World."

When the late Theodore Roosevelt went to Africa, he took with him a FOX GUN, of which he later said, "No better gun was ever made. I am exceedingly proud of it."

The STERLING-WORTH, too, is a gun to be proud of in any company—and it's built to last a lifetime. It is made in correct type for every kind of shooting, in 12, 16 or 20 gauge, with barrels 26 to 32 inches in length and any desired boring.

Until you have owned a thoroughbred gun, you won't know real shooting satisfaction and pleasure. The nearest FOX dealer will be glad to let you examine the STERLING-WORTH. If you don't know his address, write us today and we'll send it, with the FOX catalog of fine guns.

A. H. FOX GUN COMPANY
4744 N. 18th St., Philadelphia, Pa.

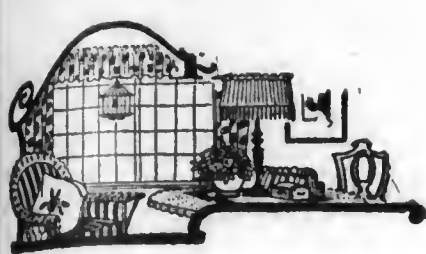
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Ask your dealer or write us for this helpful booklet. It contains interesting and valuable information on the proper method of choosing a gun for best results.

FOX GUNS



The Farm Home



Everything Was Spick and Span

At Home I Can't Compete with These
Miles of Kitchens

By GERTRUDE S. STEWART

"N O, I don't like to use foods that I haven't canned myself. I know how mine are prepared but I never trust canned goods bought from stores."

How many times we have heard these thoughts expressed! I have said the same thing many times but finally decided to get some information. My first to a modern soup-canning factory was one that left a lasting impression. There I saw food prepared under conditions of cleanliness and in a way that I have never been able to equal in my own home. The kitchens—miles and miles of them—are so "spick and span". Every nook and corner is filled with silver, tempting fragrance of delicious concoctions seasoned just right by the skilful hands of famous French chefs. The walls are smooth and light, windows clear and sparkling. The floors are of sturdy sanitary finish, showing evidence of many thorough scrubblings with boiling water.

Each department uses work-tables

More than fame and more than money is the comment kind and sunny. And the hearty, warm approval of a friend. For it gives to life a savor, and it makes you stronger, braver. And it gives you heart and spirit to the end.

especially adapted to the kind of work done there. All are exactly like you would want at home on a smaller scale, if you had the price to pay for them. The spirit of these kitchens is illuminating—all the women and men on duty there reflecting that kindly morale that is bound to tell in the final tasty dish prepared to please the world.

What Goes into the Stock Pot?

I had a real thrill when the many baskets of perfect orange carrots were spilled. And what splendid bunches of crisp white celery! It was vegetable day when I was there, and many women, clean and happy, in perfect health, were preparing the choice variety for hundreds and hundreds of cans.

The very best products are in sight everywhere, peep rolling automatically along on rollers where girls alert and careful, quickly spy and remove any rotten substance. Another group is busily combining corn with aluminum separators having the effect of a mechanical hand-dish fine wire brush. How would any talk ever enter the soup kettle when such vigilance is used? For a moment I thought I must be visiting a modern creamery, so huge were the refrigerators filled with delicious butter, golden, sweet and fresh. There is no higher test butter in the world today than I saw there going into the vegetable soups.

No Chickens Walked Here!

I well remember eating in a restaurant one day when an indignant man told his waiter and handing her his card, remarked with no uncertain meaning, "Please walk that chicken through this soup again." You may have had a taste of bone soup yourself one day when the remains of Christmas dinner were dwindling. Real chicken soup needs chickens, and I know what I saw, and wished I could help being tempting."

large birds, all of one age, and perfectly cleaned getting ready for soup.

Perhaps some day in your own busy life, when pin-feathering grew weary, you have tossed your pretty well-done fowl aside, and said, "Oh that's good enough!" No such thought ever dare enter these kitchens, for among the hundreds and hundreds of chickens I saw under preparation, there was no single fault, no broken skin, no sign of a pin-feather.

One day last summer a large woman of foreign accent stepped into our local market and asked for some soup meat. The dealer told her he had none. She then glanced at scraps thrown aside for dogs, and said, "Isn't this all right?" He told her it was a little "off". But the woman said, "Oh, let me have it. They'll never taste it in soup."

What a contrast with the ideals in this splendid majestic kitchen! Here meats are now shipped in carefully packed cases all cut up before the refrigerator ride. Bones come separately in barrels of frozen perfection. Cuts of meat are ready without another touch to be rolled into the soup vats while yet ice cold. No possible chance for contamination—no taste to be killed.

Often in private homes, when the

On tap at a moment's turn, are powerful fountains that give forth streams of running water to percolate through and wash all vegetables and other products. All possible chores are done by machinery adapted to the job. Hand touches are used only when necessary for finishing, and then rubber gloves are worn.

Sterilized After Each Cooking

Boiling steam does the sterilizing and safely processes the fine variety of soups. The huge vats that work during the condensing are sterilized after each cooking, even though the very same variety is cooked time after time.

My own store-house is not so well filled as usual this season. The crop returns have been rather disappointing, and I expect to see only empty jars soon after the New Year. How glad I am for the assurance of a carefully made supply of soups to help out.

Breakfast is about the only time one does not use soup, too. The first course at dinner, the main course at lunch or supper, and it is also a much-liked treat when neighbors come in for an evening of bridge or just chatter while enjoying the radio. Have no fears—the soups today made by reliable manufacturers are delicious, safe and nourishing.



Giant pressure cookers help make soups safe for eating

The Kitchen Cabinet

Drop Cookies

1½ cups brown sugar, 1 cup butter, 1 cup lard and ½ cup sugar, 2 eggs, 3 scant cups flour, 1 cup raisins, 1 cup nut meats, 1½ teaspoonful each cinnamon and allspice, 1½ teaspoonful each cloves and nutmeg, 1 scant teaspoonful vanilla, 1 scant teaspoonful soda dissolved in ½ cupful coffee.

I have been interested in reading the different directions for making green beans, but believe I have a better method of seasoning the beans than any that has been suggested. Simply put a piece of fat meat

in each jar, just enough to season the quantity of beans, then fill up the jar with beans and proceed to process in the usual manner. I use this method also in canning Swiss chard and other greens and they come out of the cans all seasoned ready for use, requiring only to be warmed up.
MARY C. HYDE.

Roller Oats Drop Cookie Recipe

2 eggs, 2 cupsful br. sugar, 1 cupful butter or lard or mixed, 2 cupsful oats, 3 cupsful flour, ½ cupful water or coffee, 1 teaspoonful soda dissolved in above, 1 pinch salt, 1 teaspoonful each cinnamon and nutmeg, Nuts and raisins to taste.

Drop by spoonfuls and bake in moderate oven.

Oatmeal Drop Cookies

1 cupful sugar, 1 cupful butter, 2 eggs, 7 tablespoonfuls sweet milk, 1 teaspoonful cinnamon, 1 teaspoonful vanilla, 1 level teaspoonful soda, 1 cupful uncooked oatmeal, 1 teaspoonful baking powder (heaping), 2 cupsful flour.

Drop in a greased drifter by teaspoon and bake in moderate oven until done.
V. E. E.

Quick Oatflake Cookies

1 cupful sugar, 1 cupful lard, ½ cupful thick sour milk, 1 teaspoonful vanilla, 1 level teaspoonful soda (added last thing), 2 cupsful flour, 2 cupsful oatflakes.

Pinch of salt. Add oatflakes last, drop from a teaspoon and spread lightly, leaving a little space to spread. Bake in a moderate oven. Raisins may be added if liked.

One-Egg Chocolate Cake

1 cupful of sugar creamed with a piece of butter size of an egg, 1 egg, beat all well together, ½ cupful chocolate or cocoa; wet with boiling water to consist-ency of thick cream. Fill cup with sour milk, 1 teaspoonful (level) soda, 1 teaspoonful vanilla, 1½ cupsful flour, Add soda last, dissolved in a little warm water.

Bake in two layers or in shallow pan. Any white or chocolate frosting is nice.
MRS. H. W. CLARK.

For Good Coffee

MOST people say there is nothing like a good cup of coffee to dispel the early morning gloom, and nothing like a poor cup of coffee to add fuel to it. Now, the goodness or poorness of the maternal beverage depends in part on the absolute cleanliness of the coffee pot or percolator.

Whatever the utensil used in making coffee, it should be washed thoroughly with soap and water every day. Even more careful attention should be given the inside of the pot than the outside, for if this is neglected it will affect the flavor of the coffee. The spout and the percolator tube should be kept clean of sediment or "fuzz." Special little brushes can be employed to facilitate getting at these "fuzz" places.

Besides the daily cleaning, the coffee pot should be loaded in soap suds at least once a week. Follow the boiling by rinsing with scalding water and by airing in the sun if possible.

Please print or write plainly.

EVENTS CAUGHT BY THE CAMERA



1. An unusual view of the Dance of the Ribbons, performed by Mexico City school children for the benefit of President Calles on a great patriotic celebration held there.
2. Two Washington girls examine a part of the trunk of a 2,000-year-old California redwood tree, which is now on exhibit at the National Capitol. This monarch of the woods measured 9 feet 8 inches in diameter and was computed to have weighed

5,000 tons when it fell in 1915. The tag in the center of the tree reads, "79 B. C."
3. A party of mountain climbers resting at the 14,000-foot level in their two-day ascent of 14,408-foot Mount Rainier. Below are range after range of lofty mountains in a sea of clouds. The distant peak is Mount Adams, over 50 miles away.
4. A candidate for a street car conductor's job

having her lung capacity tested as others await their turn. The passing of physical as well as mental tests are required before an applicant is given a position in Tokyo, Japan.
5. Art Goebel and Colonel Lindbergh and the two Timm brothers, who taught them the "why and wherefore" of flying. Left to right, Art Goebel, Wallace Timm, Colonel Lindbergh and Otto Timm. The Timm brothers were pioneers in aviation.

October 13, 1928.

PENNSYLVANIA FARMER

(129) 29

MRS. ALBERT'S TEACHING

By

HILDA RICHMOND

WELL, Jennie," said Cyrus Albert rubbing his hands together delightedly. "I've just about completed the deal for the Howard eighty. I've had my eye on that for some time but the heirs could not get together. It's a bargain and no mistake. With a little economy we'll soon be out of debt and then we'll take life easier. We're too young to sit down in idleness and begin to think of retiring."

Mrs. Albert had heard this declaration many times before in her busy life—times when she bitterly rebelled against the idea of adding acre to acre without enjoying any of the comforts and luxuries of life—but lately she had become hardened to it, her husband thought, or else proud of being the wife of a man so successful.

"What about our trip?" she asked quietly. "That will have to be put off a year or so. The Howard place needs quite a bit of cleaning up before it can be rented, and that is one reason I think it is lucky I got it in the fall."

"And I suppose our visit to Emily will have to be given up too?"

"Why, yes, it looks that way. We will need every penny to make the payments this coming year. But Emily will likely come home holidays and we can see her then. I wish you would hurry dinner a little so I can run over there early. I want to make an estimate of the repairs needed so I can begin. Don't bother about much. I'm too excited to eat."

Mrs. Albert was soon busy with the dinner preparations and she took her husband at his word, for some cold meat, a pie, bread and butter and some warmed-up potatoes were all that were on the table. "I think we would be much better off to eat lighter meals," said the mistress of the house without apology for the simple food. "And it would save money to cook less too."

"Indeed it would," said he, falling into her trap at once. "I have often thought you would have more time to yourself if you made less fuss over the meals."

"I wish you would hitch up old Dolly for me, Cyrus," said Mrs. Albert. "I am going out to do some errands this afternoon. I may not be home till rather late this evening."

"All right," said the farmer heartily. He was so pleased that she had taken the news so quietly that he was anxious to please her in little things. "I am sure you'll be better off if you did not stay at home so much."

That night a new surprise awaited Mr. Albert as he settled himself to figure on lumber and fencing materials for his new eighty acres. "If I can pass the teacher's examination I am to have the school at Miller's Corners, Cyrus," said Mrs. Albert much as she would have said, "I will need a sack of flour tomorrow." "Mattie Gregory, who had the school, decided to get married and the Board said I could take her place. I am to have sixty dollars a month."

"But what about the housekeeping?" gasped her astonished husband. "O, that will be easy. I will get my dinners and perhaps my supper at Mrs. Miller's and you can easily manage for yourself. You said today that we all eat too much. Winter is the easy season on the farm and you can get along first rate."

MRS. ALBERT was too much amazed to answer but instead of figuring about fence that evening he sat and furtively watched his wife as she studied and read out of a pile of school books. "Maybe she can't pass the examination," he consoled himself. "But Jennie always was the brightest girl in the school—she hasn't forgotten everything she knew."

Mr. Albert's suspense was soon over, for the following week Mrs. Albert proudly showed him her certificate to teach, together with the school contract signed by the proper officials. In a way he was proud of her ability and the increased interest she had in life, but his heart sank as he thought of the long winter days when he would be pottering about alone with the chores indoors and out. Their daughter was living in the city while the two sons who had hurried from the farm as soon as they could were also employed there, so he knew that he had no one to depend on but himself. Like many another ambitious young farmer he had begun with his eighteen-year-old wife at the foot of the ladder and now at the age of forty-five he felt young and vigorous even though his family was grown and scattered from him.

"Well, how do you like it?" Mr. Albert could not refrain from saying as his wife returned from school that first evening, flushed and radiant. In her trim new dress and stylish little hat she looked like a new being. He felt half afraid of this alert, pretty

woman who was so evidently able to take care of herself.

"I love it!" breathed his wife. "It is wonderful to think that I am to have my own money once more, but still more wonderful to think I have not forgotten everything I knew. The children are so intelligent and the mothers seem glad to think that I have undertaken the work. You needn't bother about supper for me. Mrs. Cline made me come in and eat with her this evening. I must run out and get some leaves and flowers for our Nature Study tomorrow. I don't blame you a bit for wanting to make money, Cyrus. It is as fascinating as a game, and I dreamed all the way home of what I will do with my first sixty dollars. Why, it is wonderful!"

She seemed utterly oblivious of the supper, so the hungry man essayed to put on the tea kettle while she got together scissors and basket and cord for cutting and preparing the leaves and flowers. "Take care, Cyrus," she said breaking off in the midst of an animated description of the games she was teaching the children at recess. "Be careful! That kettle leaks and I drew a bit of cloth into the hole. You remember you forgot to get the new one when I told you."

In dragging the kettle across the stove the bit of rag had pulled out and the water was flooding the rather sickly fire. Mr. Albert always said it was a waste of money to buy coal and the fuel he provided was usually refuse from the farms he cleaned up. He crammed the stove full of the wood and hastily put on a pan filled with potatoes to boil.

"IT doesn't seem to me you are making much progress with the Howard eighty," said Mrs. Albert one cold evening as she came in happy and glowing to find her husband tinkering up the poor fire in the kitchen. "Mr. Norris stopped me this evening and said he would like to rent it in case you make the repairs this winter."

"It keeps me busy with the chores," said her husband shortly. "This fire goes out a dozen times a day."

"Yes, I always found it a great nuisance," said the lady sweetly.

"I'm going to bring home a load of coal," announced Mr. Albert. "My time is too precious to spend poking rotten wood in the stove all the time."

"That's a good idea," said Mrs. Albert. "The fire box of the stove is so small that it is hardly likely coal will do much good but it is well to make the experiment. I think I'll take my house plants over to Mrs. Burke's next Saturday—No, I can't do that either for Saturday I must go to teachers' meeting."

"Had your supper?" said Mr. Albert as he set the bread and lukewarm tea and soggy potatoes on the table.

"Yes, long ago! Don't wait on me. I have some papers to correct. Mr. Emerson, the county superintendent, visited my school today and he said he found greater progress among my pupils than anywhere else. He hinted that they might ask for me at Hopewell next year at an increased salary. Isn't that lovely?"

"I'm going to send for Aunt Fanny to come and make us a visit," said Mr. Albert without replying to his wife's question. "I can't get a thing done this way. If she'll come I'll get Tom Taylor to do the chores while I get at the Howard place."

"I never thought of that," said Mrs. Albert much relieved. "I've no doubt she'll be glad to come."

But Aunt Fanny, in reply to her nephew's letter, said that she had lately taken up nursing as a vocation and her time was worth six dollars per week. "If you've a mind to do that well by me, Cyrus, I'll come, but I'm done visiting around among my relations. Every woman feels more independent earning her own money and I'm surprised I didn't think of it long ago. Folks are crazy to get me for you can't get help in the country for love or money, so you think it over and let me know."

Mr. Albert did not mention this part of the letter to his wife, but he immediately wrote and offered her the six dollars per week. Three days later Mrs. Albert came into her own kitchen to find her husband beaming over a good supper and the whole place neat and in order. "Tom Taylor will be here tomorrow and then I'm going to work in dead car-

nest," announced Mr. Albert. "I'm mighty glad Aunt Fanny is here."

"So am I!" said Mrs. Albert. "I was a little bit worried about going off and leaving you all alone when I go to see Emily, but now I can be easy."

"Maybe I'll go with you to Emily's," said Mr. Albert.

"I hope you will, but Aunt might not like to stay alone with Tom Taylor."

"I'll not stay alone here with any hired man," said Mrs. Albert positively. "And, Cyrus, if you expect me to stay with you this winter you'll have to get a new teakettle and some conveniences. I'll make out a list for when you go to town in the morning. I always tell folks what I have to have and they have to get it for me or I move on. I had an offer at ten dollars a week to take care of an old lady the day I started out here, but as I had promised you I kept my word."

"Fannie always managed with the things we have," said Mr. Albert.

"Yes, and see what came of it. She's earning her own money and she never will tie herself down to drudgery again. I don't blame her a bit."

"It costs money to supply a home with all modern conveniences," said the master of the house still arguing inwardly whether to promise to get the things or to let Aunt Fanny go back. The good supper and the clean kitchen with the prospect of relief from chores made him very mild and pacific in stating his views, but he could not give up without a struggle. "Of course if the things are really needed I'll have to get them."

Mrs. Albert had settled herself in the clean sitting room to correct papers and did not hear the latter part of this discussion. While Aunt Fanny washed the dishes Mr. Albert strolled in and in a low tone told her that Aunt Fanny demanded some new things for the kitchen. "Seems to me it's nothing but spend, spend all the time," he grumbled.

"Yes, it does seem so," assented Mrs. Albert absently. "I've been getting some new clothes for my trip and everything is very high. But if I get that place at Hopewell next winter I'll have more money."

"And I'll have less," said Mr. Albert openly. "The more you make the more it costs me. Do you feel that you have to take that trip to the city?"

"I'm going," said Mrs. Albert decisively. "I haven't been anywhere for years and years and now that I have my own money I'm going to spend every minute of the two weeks vacation in the city. I start next Friday evening as soon as school closes."

"You—we've never been separated on Christmas before," faltered Mr. Albert.

"That's true, but we never make much of that or any other holiday. Last year you butchered the day before Christmas and the house was full of grease and dirt for several days. I guess it won't make much difference whether I'm here or with Emily."

THE winter dragged by for Cyrus Albert and flew for his wife. She managed little entertainments for the children, helped with their Saturday fun and in every way devoted herself soul and body to the school so that by spring she had four offers at increased salaries for her consideration. She was fairly intoxicated with her success and could talk and think of nothing else. Aunt Fanny managed things in the farm house with a high hand, and outside Tom Taylor slouched through the chores while Mr. Albert divided his time between running to town to buy things Aunt Fanny demanded and trying to clean up the Howard eighty which he had grown to loathe. And in the midst of his troubles Mrs. Albert was joyously planning to take a course at a summer normal school and end with a trip to Niagara Falls in company with her children.

The school closed with a picnic to which Mr. Albert was invited, but he said gloomily that he had no time for such nonsense. With increased expenses everywhere he could not afford to waste a whole day in the busy spring season, so he tramped off in overalls and old shoes while his wife beautifully dressed departed for the last day of school in the old building. As he labored to clear away the remains of the old Howard smokehouse, fallen into decay, a rickabout chugged into the yard, and one of the men in the machine inquired the way to the school house at Miller's Corners.

"We have heard that you have a very remarkable teacher over there," said the driver of the machine, "and we are on our way to see if we cannot persuade her to take charge of our schools as county superintendent. Perhaps you know the lady," he went

The Decline in Cattle

Stocker and Feeder Trade

Hog Market Better

Lambs Much Lower

Corn Working Higher

Sheep

LANCASTER

Produce Market Review

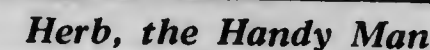
Grape Offerings Liberal

Sweet Potato Crop Heavy

9

COL. C. I. POWELL, Sec'y & Sales Mgr
P. C. GREENE, Sec'y & Sales Mgr
Kenna, West Virginia

(133) 33




WANTS---For Sale or Exchange

U. S. HEADQUARTERS

CHIX AND POULTRY

WANTED
Wool. WANTED.—I specialize in Wool and
Pelts. Aiyah A. Conover, Lebanon, New
Hamp.

—  —
MISCELLANEOUS PRODUCE
Pittsburgh

per box; corn, 40@60c doz.; string beans, 15c $\frac{1}{4}$ pk.; lima beans, 25@30c pt.; turnips, 15c $\frac{1}{4}$ pk.

FARM LAND

myer, Red Lion, Pa.

OHIO

WANTED.—To trade well located town property for farm. Will pay difference. Address

OVER HONEY.—5-pound pail, \$1.15. Ten,
\$10, prepaid. K. C. Smith, Cambridge, Ohio.

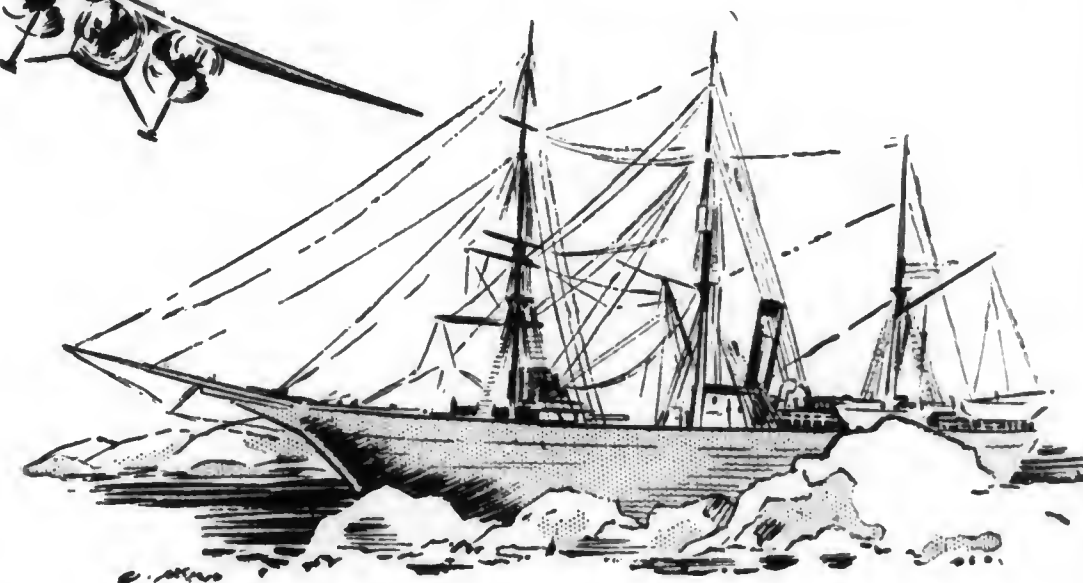
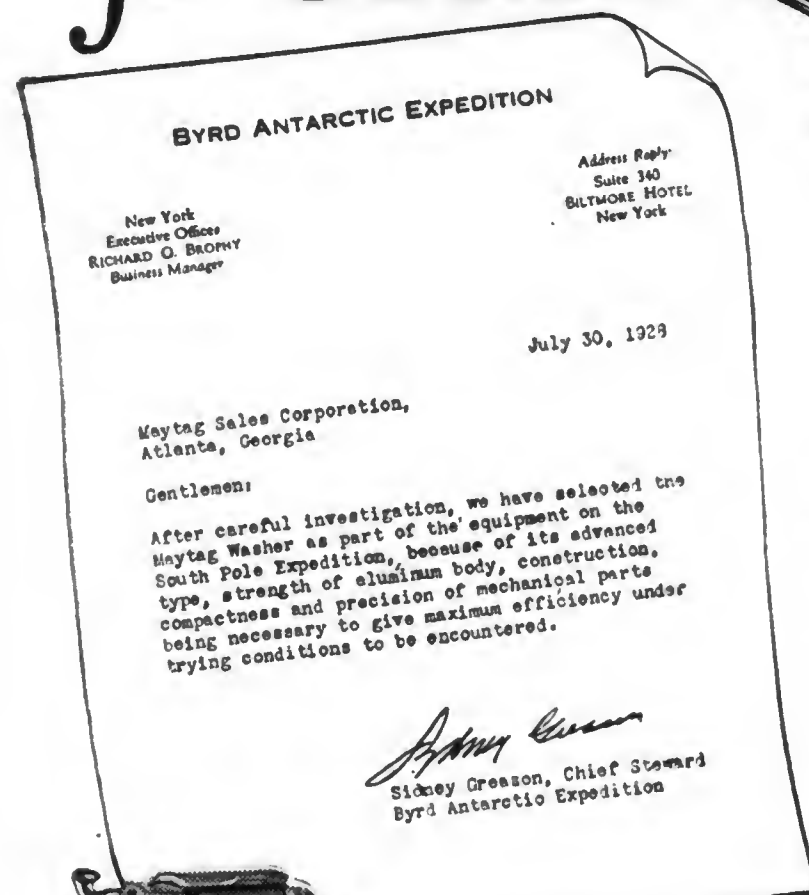
DOGS

ENGLISH BEAGLE PUPS, eight months old. Can be registered. Floyd Hess, Warfordsburg, Pa.

THURS. 100, \$1.75 1,000, \$11.00 Barbetta,
Privet, Potentilla and Rock Plants. Very low
est prices John Grubb, Box 179, Clatsville, Pa

100

Commander Byrd Chooses MAYTAGS for South Pole Expedition



ONE of the many distinguished honors that have come to the Maytag Aluminum Washer is the selection of Maytags for the Byrd South Pole Expedition.

Not only the success of this great pioneering adventure, but the lives of the men, depend on the proper selection of supplies, material and equipment. Therefore, the most rigid requirements are observed in deciding what equipment shall be used. The many outstanding advantages that gave the Maytag world leadership, enabled it to meet the exacting standards demanded by Commander Byrd.

A Fitting Tribute to the New Maytag on its First Anniversary

The noteworthy tribute of being selected for the Byrd Expedition comes to the New Maytag as it is celebrating its first anniversary—the end of the most remarkable year in Maytag history—a year in which the number of Maytags in use by farm and city homes passed the million mark.

A FREE Trial Washing

Write or phone the nearest Maytag dealer for a Maytag before next washday. You will discover, as did Commander Byrd, that the Maytag is supreme. If it doesn't sell itself, don't keep it.

Deferred Payments You'll Never Miss

THE MAYTAG COMPANY, Newton, Iowa
Founded 1893
Eastern Branch, 851 N. Broad St., Philadelphia, Pa.

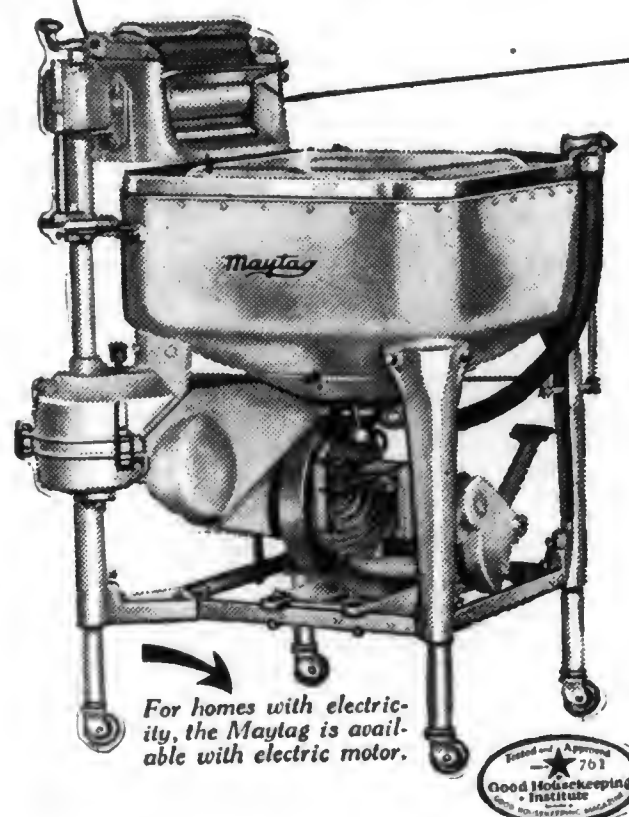
The Maytag Company, Ltd., Winnipeg, Canada
Maytag Company of Australia—Sydney—Melbourne
Hot Point Electric Appliance Co., Ltd., London, England
John Chambers & Son, Ltd., Wellington—Auckland, N. Z.

Maytag

Aluminum Washer

Gasoline or Electric Power

The Maytag makes its own power for farm homes without electricity. The Maytag gasoline Multi-Motor represents over fifteen years' development. It furnishes perfect power as smooth and sure as an electric motor, and is so compact that it is interchangeable with the electric motor by removing only four bolts. The starter and engine are in one unit. A step on the pedal starts it. All bearings are high-grade bronze. The carburetor has but one adjustment and is flood-proof. The popularity of the Maytag, equipped with the Multi-Motor has made The Maytag Company the world's largest manufacturers of single-cylinder gasoline engines. Any farm home, anywhere, can enjoy the convenience of the Maytag.



PENNSYLVANIA FARMER

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER

October 20, 1928

Established 1877



Maytag Radio Programs

KDKA, Pittsburgh
Tues. 7:30 P.M. 10:00 P.M.
WCCO, Minneapolis
Fri. 8:00 P.M. 10:00 P.M.
Portland, Ore.
8:00 P.M. WBAP, Fort
Worth, Mo. 8:00 P.M.
WBZA, Boston, Sat. 8:00 P.M.
7:30 P.M. C.F.C.A., Chicago
Tues. 7:30 P.M. WHT, Chicago
Tues. Wed. Thurs. Fri. Sat. 9:00
P.M. KNX, Los Angeles, Mon. 7:30
P.M. KFRG, Los Angeles
Fri. 7:00 P.M. KNOX, St. Louis
Tues., Thurs. Sat. 10:35 A.M.
KSL, Salt Lake, Mon. 7:30 P.M.
KLZ, Denver, Thurs. 9:00 P.M.

Hours designated are subject to
Time at the station's pleasure.

Pittsburgh

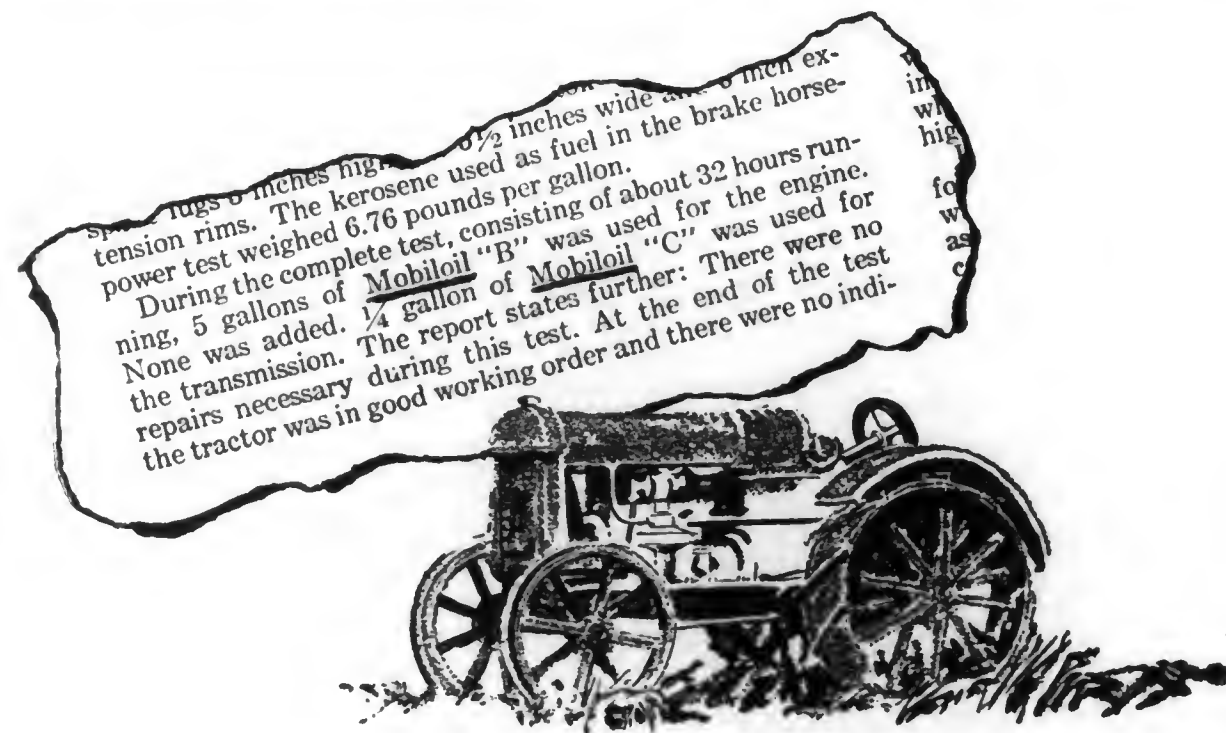
Harrisburg

Philadelphia

Oil facts for farmers

(No. 7)

90% of the tractor manufacturers relied on Mobiloil in Nebraska tractor tests



HERE is convincing proof of Mobiloil superiority.

Before any manufacturer can sell tractors in Nebraska, the state law provides that he must submit a stock model to the Agricultural Department of the State University for a series of exhaustive tests.

On the outcome of these tests rests more than permission to sell tractors in the State of Nebraska. The results are accepted as standards of tractor performance throughout the United States and all over the world.

Naturally the manufacturers take every precaution to prevent unnecessary wear and repairs. Fuel and oil consumption must be kept at a minimum.

And for these tests—90% of the tractor manufacturers relied on Gargoyle Mobiloil. No better proof of Mobiloil quality and economy could be asked.

Actually cheaper to use

Mobiloil may cost a few cents more per gallon. But farmers frequently find that it reduces oil consumption from 15% to 50%.

You also save money because less time is lost through overheating and breakdowns. You have less carbon and fewer repairs. One small repair resulting from the use of cheap oil may cost you more than a whole year's supply of Mobiloil.

Substantial discount

For a season's supply it is much cheaper to buy in the 55-gallon and 30-gallon drums with convenient faucets. On these large containers your Mobiloil dealer will give you a substantial discount.

Your dealer has the complete Mobiloil Chart which tells the correct grade of Mobiloil for your car, tractor and truck. You are always sure with

Make this chart your guide

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars, motor trucks and tractors are specified below. The grades of Gargoyle Mobiloil are indicated by the letters shown below. "Arc." means Gargoyle Mobiloil Arctic.

Follow winter recommendations when temperatures from 32° F. (freezing) to 0° F. (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford, Model T, use Gargoyle Mobiloil "E").

If your car is not listed here, see the complete Chart at your dealer's.

NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS	1928		1927		1926		1925	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Auburn	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Buick	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cadillac	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Chrysler Special Six	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chevrolet	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chrysler 4 cyl.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Diamond T	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dodge Brothers	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Durant	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Emesa	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Federal 8, 10, 12, 16, 20	A	Arc.	A	Arc.	A	Arc.	A	Arc.
UB6	A	Arc.	A	Arc.	A	Arc.	A	Arc.
22, 26W, 16B	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Ford A & AA	A	Arc.	A	Arc.	A	Arc.	A	Arc.
T & TT	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Franklin	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
G. M. C. 10, 12, 16, 20, 24, 28, 32	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Garford	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Graham Bros.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hudson	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Indiana 611, 611L	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
International 33, 41, 43, 101, 74C, 54DR, 54C, 74DR, S, SD	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Mack	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Nash	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oldsmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Overland	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Pontiac	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Reo (all models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Republic 11X, 19, 20, 24, 28	A	Arc.	A	Arc.	A	Arc.	A	Arc.
S-25W6, 25W8	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Service	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Star	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Stearns 9, 21, 21X	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Valve	A	Arc.	A	Arc.	A	Arc.	A	Arc.
White 15, 15A, 15B	A	Arc.	A	Arc.	A	Arc.	A	Arc.
(other models)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Willys Knight 4 cyl.	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
6 cyl.	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
TRACTORS								
Allis Chalmers 12-20, 15-25	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
(other models)	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Case 22-40, 25-45, 40-75	B	Arc.	B	Arc.	B	Arc.	B	Arc.
(other models)	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Caterpillar Combine	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Harvester 32	B	Arc.	B	Arc.	B	Arc.	B	Arc.
(other models)	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Chettrac	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
E. B.	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Fordson	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Hart Parr	B	Arc.	B	Arc.	B	Arc.	B	Arc.
John Deere	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
McCormick Deering	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Old Fall	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Twin City 12-20	B	Arc.	B	Arc.	B	Arc.	B	Arc.
20-35	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
(other models)	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.
Waltham	BB	Arc.	BB	Arc.	BB	Arc.	BB	Arc.

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October 20, 1928

PENNSYLVANIA FARMER

(137) 3

Farm Facts and Fancies

By ALVA AGEE

OUR coal miners find it hard to adjust themselves to conditions requiring less human labor to furnish our needed fuel. Constantly the farmer faces hardship due to changing conditions. He feels that he is driven to heavy fertilization of land to make any money, and increase in production per acre has the same effect as increase in farming area.



Better transportation facilities bring western land nearer to the markets of the eastern farmer. Every gain in farm science is in effect a gain in the farming area. There is loss of market for the corn that would have furnished the power now supplied by gasoline and oil on the farm and off it. Having surplus land whose product is not needed in market, the farmer is compelled at the same time to reduce demand by using power that is cheaper than horses.

There is no limit to the demand for human labor because there is constant shift from necessities to luxuries that soon are rated as necessities. But there is a limit to the demand for land because consumption of food has rigid limitations. This is the farmer's disadvantage. Not a happy thought? No but it is a fact to be faced so that we may keep our thinking clear, and do what is to best advantage.

I wish efforts at co-operation inclined more to take the form of cutting down the cropped area. The attempt to standardize production of live-stock, as of hogs in the Corn Belt, promises results, and yet it will not get far except as the corn acreage is made to correspond, and at the best the reduction in acreage of one crop probably would mean an increase in case of some other crop. I am rather taken by the airy way in which some say that all we have before us is only a business proposition. Maybe so. Anyway it is a proposition, but I reckon its dominating element is the human factor.

Weeds

Nature made our soils, and there were no "weeds" in her scheme. Man came along and classified most plants as weeds and a nuisance. I know farms so well managed that the soil needs only the selection of plants that the owners can grow, but there are far more farms that owe a great deal to weeds and would be in a poor way without them. Weeds usually are plants that can live in thin, or sour, or wet or drouthy land where spots would be bare without them, and always are soil-builders. They are releasing soil plant food and adding humus-making material in their own poor way, it may be, and often in first-class fashion. We don't like their competition with our better plants, and forget what soils would be if they had not been at work, and were not now at work, where better plants are not covering the ground.

Now, then, a weed of outstanding value, like sweet clover, comes over into the class we appreciate as useful. There will be more such instances. Thousands of varieties of plants have helped

in soil-building, and are still at it in places that otherwise would be bare. I have seen horse-weeds, higher than a horse's back, turned under and a fine crop of potatoes produced.

I am not saying that weeds are not mightily in the way when a farmer and a soil can use better plants, but probably half of our farming area would be poorer if plants that can grow under adverse conditions, and that we call weeds, were not covering all spots, big and little, that are not producing better plants. All are helping to make the soil.

A Bit of Whistling?

A few weeks ago I wrote of the drift of retail business into the hands of great corporations by means of chain stores, but I kept up courage that the small farm is here to stay. My friend Coleman, Assistant Director of Extension in Indiana, writes commenting on the difficulty of the small merchant in meeting competition, the absorption of the small steel mills, tin-plate factories, etc., and the fact that farming alone remains outside the control of big business. He says: "What is to be the future of our agriculture? The old rhyme, 'A little farm well tilled, a little barn well filled, and a little wife well willed,' presents an ideal picture of rural efficiency and contentment, but will it meet the needs of this afternoon and tomorrow? I hate to think it will not, but sometimes I have my doubts. I wish I knew."

Like Mr. Coleman, I wish I knew, but I am banking on the "home" value in a forty, eighty, or one-hundred-and-sixty-acre farm overtopping the value a corporation can find in an equal area. Maybe we are whistling to keep our courage up, but whistling is an entirely right thing to do when we know that we are bound to win out. Regardless of all corporation farming the one-family farm, I am sure, is secure.

A Matter of a Receipt

When the bill came, I paid it by check, and later on the bill was presented again. It is not an unusual experience. I notified the company that I had paid, and held the canceled check with its endorsement on the back. That is equivalent to a receipt. The company looked matters up, could not find any trace of the transaction and phoned asking whether I would bring the canceled check to its office for inspection. I replied that I certainly would not, as my duty in the matter had been done, but if it would send a man to me he would be shown the check.

This course was taken merely as a reminder to a corporation that it should not expect more from an humble individual than from another corporation. Then it traced the matter out and I found where the error had been made. Repeatedly the most of us have the experience of being dunned for an amount that has been paid.

It is better to borrow the money for a checking account than to try to run on credit and not travel quite fast enough to keep up with oneself. When one notes the object of the check on the stub, and has the name of the other man on the back of the check that the bank has canceled and returned to him, he can sit tight when any question arises.

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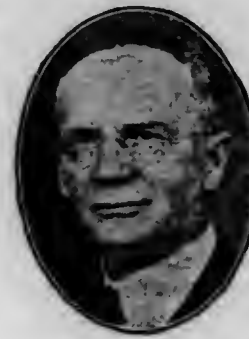
GOODYEAR

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By R. P. KESTER

WE have just finished a rather disagreeable but paying job. The poultry houses have been thoroughly fitted for the laying hens. A great many persons do not know just what that means, never having done it. Too often the cleaning of the poultry house on the farm means backing the wagon up to the door once a year, usually when the manure is wanted in the spring, and forking out the contents. Putting the houses in fit, sanitary condition requires more than that. Here is the way we did it:



The first thing to do in hen house cleaning is to remove the furniture—the feed hoppers, drinking stands and the roosts, which of course are removable. Then the litter is hauled away and spread. We put it in the peach orchard. Next, the walls and ceiling are swept down. The floor is then scraped and swept as clean as a kitchen floor. An application of creosote was applied to floor and dropping boards. Next, the furniture is tackled. The roosts are scraped and creosote applied to them. Nests are emptied, cleaned and creosoted. After they are put back the whole of the interior is sprayed with an antiseptic and insecticide. This makes the house ready for the new litter and the fowls.

Our house is divided into sections, each capable of housing one hundred hens. In cleaning one section at a time is taken and it requires about a day for each to do a good job. Careful search was made for mites, the bane of summer layers, but we could find no sign of a mite anywhere. No doubt this is due to the effects of the creosote and insecticides applied at previous cleanings. The dropping boards are cleaned daily, superphosphate (acid phosphate) being used on the boards all the time. This acts as a deodorizer and at the same time adds much needed phosphorus to the manure.

After this siege of house-cleaning the pullets were put in to stay. They have had their last run out in the orchard. But they seem as happy as larks in their new quarters, singing and scratching all day long. As they were put in we gave them a treatment for worms. Worms, if not controlled, will soon put a poultry keeper out of business. No doubt many flocks have them and the owners do not know what is the matter. When half-grown chicks go light and finally become unable to walk, it is usually due to one of two things—worms or tuberculosis.

The treatment we used for worms is known as the iodine treatment. There are two ways of applying it, either dropping iodine through a tube inserted in the throat down to the gizzard, or by putting a pill containing iodine into the mouth and working it down from the outside. Iodine should not enter the crop in a free, liquid form. It must

be kept from touching the digestive tract until it reaches the gizzard. The pills we used are about as big as the end of your little finger and are black in color. In the center is the liquid iodine, but the coating stays intact until it reaches the gizzard. Three of us handled and dosed 150 pullets in an hour and a quarter, one person doing all the pill-giving. The dropping boards the next morning gave mute testimony to the efficacy of the iodine treatment.

This seems like a good bit of space devoted to one subject, something unusual in this department, but the importance of doing things right in the poultry business, and the knowledge that many people are not thorough in their work, seems to warrant me in stringing it out this time. Feed is too expensive and labor too valuable to waste them in feeding a lot of poultry that cannot produce because of disease and parasites.

Wife and I went with our son and his wife to our old home in Clearfield county, Pa., a few days ago, and a glorious trip it was. We started early in the morning, ate breakfast in Coatesville, lunched at Huntingdon, and arrived at our first stop at three-thirty p. m., two hundred and eighty-five miles from home. Howard is a good, speedy driver and, what is more important, safe.

We had a gathering of the Kester clan at the old Homestead on Saturday. The whole family was there, and such a time talking and eating as we had! Six chickens, and other things in proportion. The day was all too short, but it brought back pleasant boyhood days, and revived memories and friendships—things which make the passing years enjoyable.

The next day was spent at the old Davis homestead, my wife's girlhood home, with her brothers and sister and most of their families. This was a repetition of the joys of the day before. Refreshments and good spirits were in abundance, and two o'clock, our starting time came all too soon.



Our trip home was made over a new road—new to us—via Snow Shoe, Bellefonte and the Seven Mountains to Lewistown. Any one who has not traveled this splendid highway and viewed the mountain scenery in autumn, especially the scenery to be viewed from the mountain above Center Hall, has no business going abroad until he does see it. It is useless to put down words trying to describe it. They cannot bring the thrill that comes with actually seeing it.

Concrete Bases for Hives

WHEN the supers on the hives become heavily loaded with honey in summer, there is danger that the hives will lean and eventually tip over on a windy day. This trouble can be prevented by putting the hives on a cement foundation. T. H. Miller, a well-known beekeeper in northern Maryland, tried this plan and says the results quickly paid for the expense and trouble.

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No. 5

CHANGE IN MILK PLAN

ON another page of this issue is a summary of the proposed change in the system of selling milk collectively in Pittsburgh territory. Those who are concerned, as members of the Dairymen's Cooperative Sales Company or as sellers on the basis established in this market, should get the plan in all details and study it. The officials of the above-named organization will be glad to give whatever further information is desired.

TOO MANY GRAPES

THERE were 300 carloads of grapes on the tracks in the Pittsburgh produce yards Monday morning, October 15th. An embargo shuts out further arrivals until they can be sold, if they can be sold. About two thousand carloads of western grapes are waiting in Chicago to be diverted to eastern markets as soon as the embargo is lifted. We know of producers who have lost \$200 a car on their shipments; the rest of their crops will stay on the vines. The grape men are harvesting what they planted—too many grapes.

OUR COLLEGE

A FRESHMAN, a few days after his arrival at Pennsylvania State College, was being shown the farms in company with others of his class. As he saw a herd of pure-bred cattle going down toward the creek he asked, "Are those our cattle?" He had the right idea and he got it at the right time. If all the people of Pennsylvania could catch the same gleam, could realize that State College belongs to them and is devoted to their service, there would be no trouble about getting votes enough to approve Amendment No. 2 on election day, November 6.

FARMERS' BANK ACCOUNTS

A PENNSYLVANIA banker, not in a large city and not in a village either, tells us that the accounts of farmers average much higher than the accounts of city depositors. In his case analysis of over two thousand accounts showed that his average farm customer's deposit was \$390 more than his average town customer's. It would be interesting to know the percentage of farmers using banks both ways, as depositors and as borrowers to finance business operations.

COMPETITIVE WHEAT GROWING

THE October crop report estimates the yield of spring wheat at 325,000,000 bushels, making the country's total yield this year 903,865,000 bushels. The Canadian crop is estimated by commercial authorities at over 350,000,000 bushels, but official estimates may be somewhat less than this. Probably the two countries have produced 1,450,000,000 bushels. Probably also there will be enough wheat to supply the needs of import-

ing countries this year, if not the "plethora" which some prophets foretell. We don't know enough to make price predictions and don't believe that anybody else knows enough. For the status of both production and consumption is still unknown in several important regions such as Russia and China. But we do know that production is increasing and this in the face of statements which show that costs are in excess of prices. It is increasing chiefly in regions of low cost, and apparently will continue to increase there. This is something for farmers in regions of high production costs to ponder. They are in competition which is not getting any easier as the world's wheat area expands. Should we continue to raise wheat where costs are high? What can take its place in our crop rotations?

THE FATAL BULL

THE trusted bull continues to put its friends into the hospital or the cemetery. On Sunday, October 7, Mr. E. D. Rake of Washington county, Ohio, found his bull out of bounds and with an ear of corn as bait attempted to lead it into a pasture. The bull suddenly attacked and knocked him down, goring him in the thigh, crushing his shoulder and inflicting other injuries from the effects of which he died in the hospital at Marietta three days later. He would have been killed instantly but for the fact that he was able to roll under a granary where the bull could not reach him. The enraged animal could not be driven away and Mr. Rake could not be rescued until a rifle shot ended his bull's career.

Last week Walter Peterson of Rockford, Ill., attempted to drive a herd of cattle, including a bull, from the pasture to the barn. The bull attacked and got Peterson down, but he grasped its nose-ring and called for help. A police dog responded and assailed the bull, distracting its attention long enough to allow the man to crawl through the fence. He was painfully but not seriously injured. Here again the dog has proved the best defense against a vicious bull. Some persons regard a bull as not likely to be dangerous when with a herd of cattle. But does not a male's instinct to protect the herd make it even more dangerous then than when it is alone?

COMMERCIAL CROP ESTIMATES

SEVERAL charges have been made, at different times, against commercial crop reports and those who prepare them. We have never paid much attention to such charges, for it should be evident that business men have too much sense to hire somebody to get information to mislead them. The Grain World has analyzed commercial reports during the past eight years with a view to ascertain their relation to official reports. Taking winter and spring wheat, corn and oats, using September private and official reports and comparing with December or final official reports, it finds: In six-

teen cases the average of September commercial reports was closer to the final estimate than was the September official report, in fifteen cases it was farther away and in one case it was the same. In nineteen cases out of thirty-two the average of September commercial estimates was less than the final official estimate; in thirteen cases it was greater, but in twelve out of these thirteen the September official estimate was likewise greater. The difference between the two classes of crop estimates is usually not very great. This analysis shows that both official and commercial authorities appear to be trying to get at the facts, and both should be given credit for the good work they are doing.

BLOOD PAID

NO higher tribute to the value of blood in the improvement of livestock could be desired than that reported at one stop of this year's West Virginia special ram train. In a certain community one pure-bred ram was introduced last year, and this year farmers in that community took an even dozen of the rams distributed by the special train. The most convincing argument in favor of pure-breds is the results of such stock on one's own farm or a neighbor's farm. Evidently the lone ram from last year's train was a good advertisement, and it is hoped that his associates will live up to the expectations which he has aroused.

OUR DEER FRIENDS

THE shooting of a limited number of does this year is not going to solve Pennsylvania's deer problem, but it is going to shed some light on it. Those who are obstructing the Game Commission in its intent to keep faith with farmers who have suffered deer damage, in its attempt to secure a correct balance between the sexes of deer, in its effort to save the deer from starvation, should take a broader view of the situation than they can get by considering it locally. They should remember that the Commission must do something to change a deplorable situation, that it is trying to make things better for sportsmen and farmers as well, and that only by experience can it arrive at the proper conclusions. They should remember also that all other means of making the adjustments that must be made bring forth protests, just as does the shooting of does. The doe is no more a sacred animal than is the cow or the ewe. The barren doe is worse than worthless to the hunter or anybody else if she cannot be hunted. With only 120,000 doe licenses and with the usual luck of hunting the doe herd cannot be seriously reduced, probably not sufficiently reduced. Let us remember that the Game Commission deserves credit for the present abundance of deer. Also it bears responsibility for too many deer as well as too few. It has accepted its responsibilities and should have the support of the people in its endeavor to use its authority for the public good.

A STUDY recently completed by M. S. Kendrick of the Cornell University Agricultural Experiment Station, and published as bulletin 469 of that Station, contains so much that is illuminating on this subject and gives such a splendid basis of comparison between Pennsylvania and states where other methods of tax collection are in use that we believe the readers of this paper would be interested in a brief review and in a few comparisons.

There are only two states west of Pennsylvania where a unit smaller than the county is the administrative unit for the collection of general property taxes, while the smaller units of towns and townships are used in all states north and east of Pennsylvania. The older states of the Northeast adopted systems of tax collection 150 years ago that were suited to those times and they still follow the same systems. Today the means of travel that are available have made the county relatively smaller than the township was 150 years ago.

Today 90 per cent of all business is done by payment by check instead of by actual money, so that contact between the tax payer and the collector is not necessary. Today the more modern system of tax collection in use in the states that were organized more recently is better adapted to our present conditions and to our present business practices. There are 34 states where the county unit is used exclusively for the collection of the general property taxes.

In twenty states the taxes are collected by the county treasurer in addition to such other duties as he performs and the salary which he receives covers his compensation for all his services. Some states have county tax collectors either on salary or on a fee basis. The fee system for paying tax collectors is confined almost entirely to the East and the South and even in this section the salary basis is used in some states.

Costs of collection under each of the four prevailing systems cannot be compared exactly, since in a county treasurer's office, where he collects the taxes, it is impossible to separate the actual costs of collection from the other costs of running his office, but a comparison can be made between costs of collection under the fee system on a township basis, costs of collection under the fee system with a county tax collector, costs under the salary system with a county tax collector, and the entire costs of running the county treasurer's office including all costs of tax collection where this system prevails.

In New York state, where taxes are collected by township and town collectors and they receive fees for their services, it cost 1.35 per cent of all state, county and town taxes and 1.12 per cent of the school taxes to collect them, an average for all of 1.29 per cent.

Collects on Salary Basis

The costs of collecting the county taxes in Pennsylvania under a township and town collector system with fee payment is shown in the accompanying table taken from the bulletin.

While one county gets its taxes collected at a cost as low as 0.2 per cent, another runs as high as 6.9 per cent, and a number of them are over four per cent. The average for the 29 counties is just a trifle under three per cent.

In three states the taxes are collected by a county collector who is on a salary basis and in these three, California, Maryland and a portion of Oregon, the cost of collection, including salary and all office maintenance, is 0.5 per cent of the taxes collected.

In Alabama, Arkansas and Tennessee a county collector or a county trustee collects the taxes and is paid on a fee basis. In these states the cost of collection varies from 1.5 to 2.7 per cent of the taxes collected and the average is 1.94 per cent.

The costs of collection and the entire maintenance costs of the treasurer's office and for the performance of all his duties is given in the bulletin for counties in eighteen of the twenty states where the county treasurer collects the taxes. The salaries range from \$1,100 to \$6,000, but the majority are in the \$2,000 to \$3,000 class. The total costs of maintaining the

County Tax Collections in 1923

County	Total taxes collected	Compensation of tax collector	Relation of compensation to taxes collected (per cent)
Berks	\$890,447	\$32,484	3.7
Bucks	276,774	2,907	1.1
Centre	121,021	6,031	5.0
Chester	437,933	1,600	0.2
Clarion	95,130	2,039	2.1
Clearfield	370,152	7,403	2.0
Clinton	102,684	7,046	6.9
Columbia	75,746	1,892	2.5
Dauphin	685,271	26,420	3.8
Erie	780,464	38,487	4.5
Fayette	1,069,629	35,040	3.5
Forest	34,534	575	1.7
Huntingdon	125,241	2,475	2.0
Indiana	213,000	4,080	1.9
Jefferson	234,009	12,700	5.4
Juniata	45,396	1,590	3.5
Lancaster	380,966	8,173	2.1
Lebanon	209,219	7,105	3.4
Lehigh	539,100	25,598	4.7
Monroe	29,680	1,856	2.3
Montour	25,128	713	3.0
Northumberland	421,830	17,967	4.3
Potter	62,105	2,500	4.0
Somerset	241,312	7,644	2.9
Sullivan	126,167	618	2.1
Susquehanna	132,782	3,692	2.9
Tioga	1,092,975	3,157	2.3
Washington	1,092,975	6,374	0.6
Wyoming	54,595	1,866	3.4
Total	\$8,921,846	\$296,792	2.99

Per cent
Report of the Pennsylvania Tax Commission, 1925, page 125.

The Costs of Tax Collections

By F. P. WEAVER

treasurer's office including his salary range from \$2,282 to \$43,144. The lowest cost is 0.3 per cent and the highest 3.5 per cent. The average for all counties reported in the eighteen states is 0.7 per cent.

In Pennsylvania the costs of collection of county taxes alone average 2.99 per cent of the taxes, while in the states where the county treasurer collects the taxes the cost of collection and cost of the treasurer's office was only 0.7 per cent of the taxes collected, or less than one-fourth of the cost of collection alone in this state.

Causes for Cheaper Collection

That the cost of collection in Pennsylvania, if the county treasurers collected the taxes, should be lower than the average of the eighteen states given in the study is to be expected because of the high valuations of property in Pennsylvania and the large amount of taxes collected. The costs of maintaining an office do not increase directly with the increase in amount of money to be collected.

In the state of Ohio, where the county treasurer collection system is used for all general property taxes, the costs of his office and of all collections average only .36 per cent of the taxes collected, indicating that in the rich eastern states a lower percentage is sufficient to cover all necessary costs involved in getting qualified people to do this work.

Mr. Kendrick summarizes the causes for cheaper collection by county treasurers to be as follows:

A county unit makes possible economical efficient methods. Adding machines, filing cases, addressographs and other modern equipment for business can serve for the work of collection as well as for the other work of the treasurer.

There is a saving due to better use of the treasurer's time and of office space, equipment and labor. The salary makes it easy for all to know what remuneration a public official gets and is quite apt to be so fixed by law as to be just adequate to attract the right kind of people.

The fee system closes the possibility of economy in large scale collections.

Mr. Kendrick quotes Adam Smith's principle that "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state." In the interest of harmony with this principle, which our growth and change in economic conditions have not made

obsolete, as all will agree, the township tax collection system with the fee system of reward now in use in Pennsylvania should be abolished. In its place should be substituted the modern, economical and efficient system now used in many other states.

Re-equip to Keep Up with the Times

By G. F. JOHNSON

WE read not long ago how one of our best known automobile manufacturers spent millions of dollars to re-equip what was regarded as one of the most efficient factories in the world in order to continue to make a product the public would buy at a profitable price.

At first thought one is inclined to say, how fortunate the farming industry is; it does not have to go through such a drastic and costly re-equipping process. The most essential farm implements, the plow, the harrow, the cultivator, etc., are about the same as they were 25 years ago and from all indications will continue to be used in even the distant future. Motive power has changed somewhat and machinery has been modernized, but that has been a gradual, not a forced, readjustment.

There is a lesson, however, for those of us associated with the farming industry, in the recent re-equipping of automobile factories. Farmers must meet the changing buying habits of the public, the same as the automobile manufacturer, and in this respect the farmer has problems quite as serious as those of the auto

makers. To be sure, changes in eating habits have not taken place quite so rapidly as changes in desires for certain kinds and designs of motor cars, but that may not be entirely an advantage because the process may be so slow that it is not recognized in time to take full advantage of it.

We are told that there have been changes of far-reaching importance in the national diet. Wheat, flour and corn meal have lost heavily, especially the latter. Sugar, on the other hand, has gained enough to make up about one-third of the decline in cereal consumption. The other two-thirds of this loss in cereals has been made up to a very large extent by increased consumption of dairy products and vegetables. Meat consumption has held its own, in fact gained slightly, but there has been a decline in beef which has been more than made up by an increase in pork consumption.

The problem of re-adjusting production to suit the public taste gives us one of the best reasons for farmers cooperating in large marketing associations. It is only through such selling organizations that the ever-changing consumer demands can be influenced and can be reflected back to farmers soon enough for each to have equal opportunity with all others to take full advantage of the changes.

A recent saying is "If not cooperative marketing, what?" This might better read, "If not better adjusted farm production through cooperation, what?" Cooperative marketing and a properly adjusted farm production go hand in hand, but cooperative marketing alone cannot overcome, except perhaps temporarily, serious short-comings in the adjustment of production to consumption.

Makes 400 Bushel Potato Club

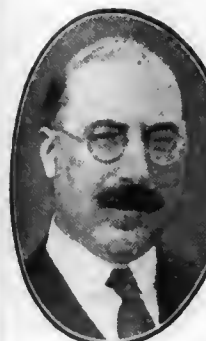
THE first 400-Bushel Potato Club member to be reported from Centre county for 1928 is Dr. E. L. Nixon of State College, Pa. His acre yielded 440.9 bushels per acre.

Dr. Nixon decided to try some practical potato growing. He leased what is known as the old Bailey Farm near Pine Grove Mills and planted 1.5 acres of potatoes. This farm is not above the average in fertility in this section and the results were not expected to be so good the first year. In checking the acre it was carefully measured and four average rows across the field were dug and weighed. The variety is Russets—3rds grown in Michigan last year.

Soil—Nature's Great Laboratory

More About the Vital Part the Soil Plays in the Affairs of Mankind

By J. G. LIPMAN



of crops, timber and livestock products passed into channels of trade, broadened the outlook of peoples and brought them in more intimate contact with commonwealths far removed from them.

On the other hand, soils of low fertility have served to encourage restlessness and migration. Indeed, progressive soil depletion has often brought about mass migration and armed conflict. When we study the history of commerce and of manufacturing, we are impressed with the part played in their development and decline by soil fertility and soil poverty. Political alliances have arisen in part through differences in the quality of soils. Plant and animal diseases, crop failures, famines, pestilences and the changes to which they give rise may be traced back more or less directly to the land and its productivity.

Soil Deterioration

The mantle of soil covering the rock skeleton of the earth does not remain unchanged. Water and the force of gravitation constantly tend to move material from higher to lower levels. The surface of the earth is being planed down with varying rapidity. The leveling of mountains, the formation of alluvial plains, the deposition of sediments along the seacoast and the shifting of the surface strata are well known phenomena. Where the land is not protected against erosion, great masses of soil material are carried away. We have to reckon, thus with the mechanical denudation and the ruin of large areas of agricultural land.

We have to reckon also with chemical denudation, a process in which the soluble portion of the earth's surface is carried to the sea. Improper methods of tillage make for excessive decomposition of organic matter and the deterioration of the soil texture. The loss of lime and of other basic constituents encourages the accumulation of soil acidity. The removal of crops involves the removal of available plant food and leads to the rise of certain soil deficiencies.

The fact of soil deterioration is fully appreciated by soil investigators and economists as well as by farmers. Because of this fact more or less serious economic disturbances arise. Such economic disturbances find expression in social and political change.

Soil Conservation

It lies in the hands of man to retard, if not entirely to prevent, soil deterioration. With the aid of a suitable plant cover the land may be protected against erosion as well as against chemical denudation. It is well known that soil, when undisturbed, will tend to increase its content of organic matter and of nitrogen and will tend to accumulate certain of the mineral constituents of plant food in the surface soil. Humid soils, when undisturbed, will lose a part of their lime, to be sure, but not fast enough to favor under ordinary circumstances the accumulation of excessive amounts of acidity. When tilled crops are grown the types of farming may be so arranged as to allow a substantial reduction in the amounts of nitrogen, organic matter and mineral plant food ingredients lost from the soil. When crop residues are properly conserved and livestock manures protected against leaching and excessive fermentation,

the fertility of the land may be still further conserved and its ability to produce profitable crops materially enhanced.

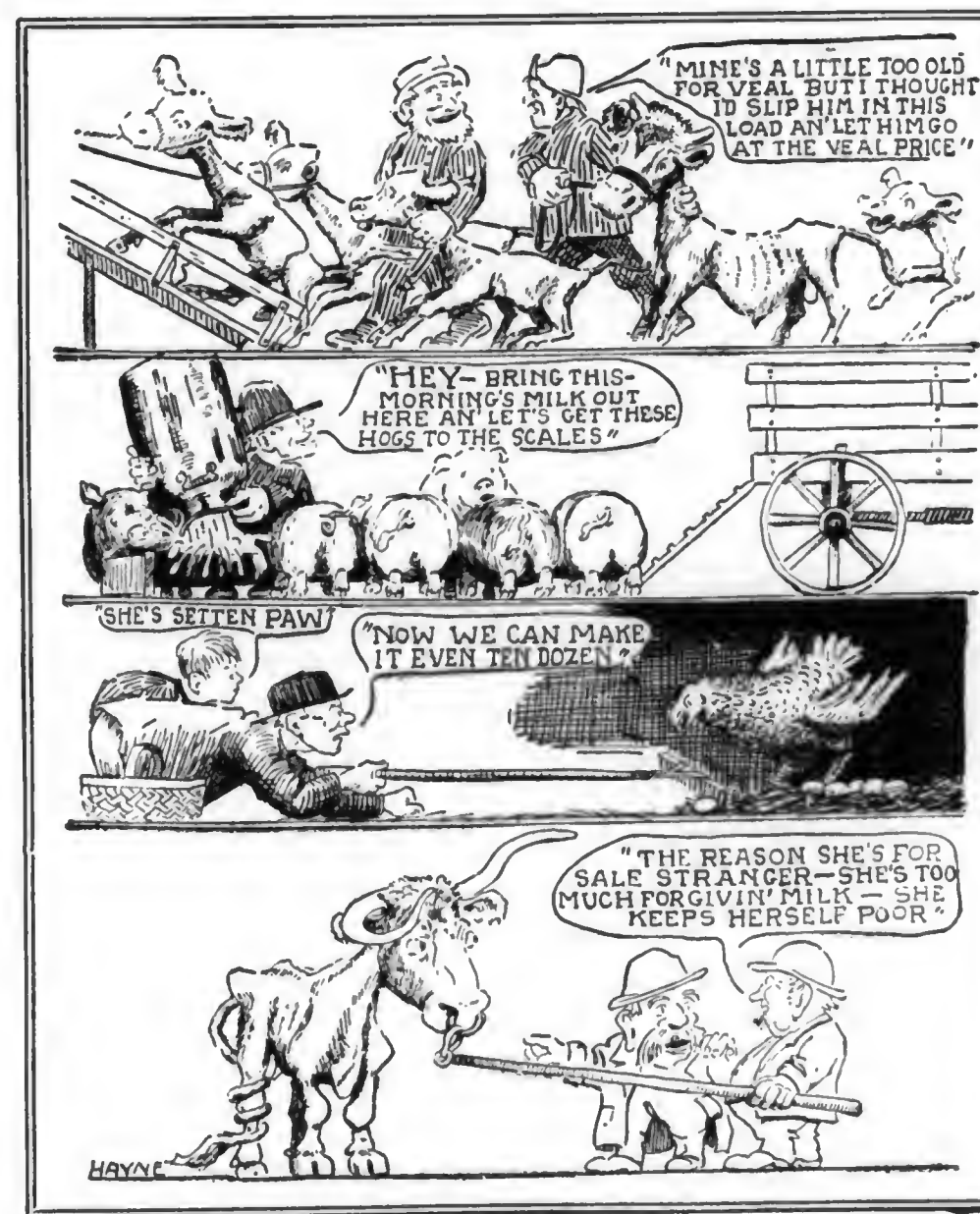
Not content with retarding or stopping the deterioration of his soil, the progressive farmer attempts to build it up and to increase its productivity. In order to create a medium more suitable for the activities of soil microorganisms and root development, he improves the texture by suitable methods of tillage, by the use of lime and by the incorporation of larger quantities of organic matter. To offset the accumulation of soil acidity, he uses lime, basic fertilizers, wood ashes and like materials. He depends on grass crops and green manures for increasing the content of organic matter and nitrogen in the soil. He increases the supply of available plant food by improved tillage methods, by the use of animal and green manures and by application of commercial fertilizers.

Where there is an excess of water and a deficiency of air in the soil, he installs drainage systems for the purpose of creating more normal conditions. Where there is a deficiency of water, irrigation methods are developed and irrigation water supplied. By the use of these and other methods, farmers in many parts of the world have been enabled to increase crop yields to a point where more animals can be maintained on any given area and a larger human population supported on it.

The striking increases in production per acre since the beginning of the present century in countries like Belgium, Denmark, Germany and Holland bear ample witness to the contributions made by soil science toward the more efficient use of the land, toward intensifying its productive capacity and toward increasing the size of the animal and human populations that may be comfortably supported.

There are very marked differences in the content of phosphorus, nitrogen, calcium, magnesium and of other ingredients in crops produced on different soil areas. Crops rich in these constituents are more effective as material for developing the bones and

They Claim the World Is Robbing Them



muscles of animals. In view of the fact that bones consist largely of calcium phosphate, the elements calcium and phosphorus must be supplied in adequate amounts if animals are to attain a normal size. Calcium and phosphorus deficiencies in soils are reflected in retarded development of the livestock and of human beings subsisting on the crops produced in the given area.

These facts were recognized by Liebig toward the middle of the 19th century. More recently chemists and physiologists have pointed out the significance of accessory food substances, some of them designated as vitamins, in the nutrition of animals and man. It has been shown, furthermore, that manganese, boron, copper and perhaps other ingredients may be essential for the formation of some of these accessory food substances. It has been shown that there is a more or less definite relation between the iodine content of soils, the proportion of iodine in crops grown on these soils and the prevalence of goiter.

Soils in Relation to Health and Disease

We are beginning to recognize in a larger way the relation of nutrition to health and disease resistance. The question of balanced diets is thus carried back to the composition of crops as affected by the composition of soils. The student of soil science, in cooperation with the physiologist and pathologist, may well give thought to the place that may be assigned to soils in our study of nutrition, health and disease resistance.

Coal has been referred to as bottled or petrified sunlight. The metaphor holds good when we think of the distant eras during which solar energy was utilized by plants for building carbon compounds out of carbon dioxide. Carbon and hydrocarbons are a heritage of older days and the bequest of sunlight that came to the earth a long time ago. We do not know what part the sun has played in the formation of the hydrocarbons of petroleum. We do know, however, that bituminous coal, lignite and peat represent different stages, from the time standpoint, in the accumulation of solar energy residues at the surface of the earth or at some distance below it.

No matter how efficiently we may use our reserve of coal, peat and petroleum, the solar energy which they represent will last but for a relatively

short time in our industrial age with its speeding up in the exploitation of our energy resources. Much of this heritage has already been used, and in large measure wasted. The less ancient reserves of solar energy in our forests have been wastefully employed. We are coming to the time when we are to draw to a greater degree on the energy of current sun light. Our soils will be depended on in greater measure for the production of alcohols and for other liquid fuels. We shall depend to a greater extent on sugars, starches, celluloses, fats, organic acids and other products as raw materials in our chemical industries. In a word, then, we shall develop some definite policies for land utilization as a means of capturing for us greater amounts of solar energy. (To be continued.)

Saves the Leaves

HERE is a stunt that I have practiced for five years. In the fall I gather leaves in the yard, and put them on the garden. The leaves stop the garden from washing, for it slopes to the south. In spring I spade them into the ground.

The first year I turned leaves under, my garden didn't do very well, and my neighbors sniled at me for doing what I did, but the second year you should have seen my garden. It was a good one. The second year when I dug up the garden, the angleworms were numerous and they had worked in compost. The dirt was all honeycombed where the worms had worked. I go through the same performance every year and the ground is getting more productive all the time.—N.

Eastern Farm Comments

By MILES HORST

OUR crop and livestock reports generally issued according to county over-emphasize to the public the importance of production in the larger counties at the expense of the smaller ones. Take four Pennsylvania counties for example. Cameron has 183 farms; Lehigh has 2,638 farms; York has 7,903 farms and Lancaster has 11,457 farms. Yet in the published statistics this great variation in size of counties is never mentioned. The public seeing merely the total production will take for granted that the county ranking highest must be the best to go to if business is to be transacted. There will be a tendency to pass the smaller producing county by even though its farmers are equally as successful, efficient and business-like. Placing these statistics upon a farm basis or even upon an area basis would be less convenient but fairer to all farmers in the state.

THE State College engineers have given the cost figures on plowing on the College farms. Plowing with the tractor on ground practically free of rocks cost \$2.33 per acre, on ground moderately stony \$3.47 per acre and on very stony fields \$4.07 an acre. Curiously plowing with horses varied little on the different kinds of ground, the cost being \$3.71 per acre.

ONLY 315 hogs are reported to have died from hog cholera in Pennsylvania so far this year as compared to 1,128 reported for the same period a year ago. Two factors may have helped to diminish the ravages of this disease. There has been greater activity in vaccinating hogs throughout the state this year than last year and the Bureau of Animal Industry has placed greater restrictions upon the hog traders.

SEVERAL potato fertilizer demonstrations conducted in Schuylkill county, Pa., under the supervision of County Agent Bollinger, add more evidence to the general experience of potato growers in this state that phosphorus is a most important element in their potato fertilizers. Applying the same amount of fertilizer in each case, a 4-16-4 fertilizer yielded at the rate of 346 bushels per acre and a 4-8-7 at the rate of 327 bushels per acre. On another farm a 4-16-4 outyielded a 3-12-7 and a 4-8-7 fertilizer.

COUNTY AGENT EDINGER of Cumberland county, Pa., reports the results of a distance of planting demonstration on potatoes conducted in his county as follows:

Planting Distance	Lbs. Tubers Secured	Yield in Bus. Per Acre
8 in.	437 lbs.	466.8 bus.
10 "	465 "	496.7 "
12 "	431½ "	460.9 "
14 "	419 "	447.5 "

The significant fact brought out by this demonstration is that there is a certain distance of planting which gives the maximum yield. The distance farther apart than this decreases yield. The distance giving the maximum yield varies in different farms according to the fertility of the soil. A fact not brought out by the above figures yet closely related to them, is the percentage of marketable potatoes in these various distances of planting. The close planting increases the percentage of small potatoes and when planted too far apart there is a tendency to over-sized stock.

TEN THOUSAND more square feet of show space will be available for the 1929 Farm Products Show to be held at Harrisburg the third week of January, than was available last year. The show will assume more or less the general character of former shows. Two innovations will be included this year—a Home Economics Department and a Vegetable Department. It is likely that the dairy cattle exhibits will be increased in number and a sale of dairy cattle is now being seriously discussed. The showing and sales of baby bees and fat lambs will be continued. The Poultry Show will feature Rhode Island Reds. The Corn Show no doubt will be larger than for several years since corn exhibits from the corn-belt area will be admitted this year.

A POTATO buyer from Philadelphia who last year handled 1,200 carloads of late potatoes shipped from various points in Pennsylvania as well as from distant producing areas made some striking comments upon Pennsylvania potatoes while visiting with me in my potato field recently. He said that the newer potato producing sections of this state are shipping a better product to market than those noted for years as potato producing centers. He

further stated that if our Pennsylvania growers would grade their stocks as carefully as do their competitors, eastern markets would be in their hands during the late potato marketing season, for Pennsylvania growers are growing a quality product and it costs less to get it to market. But when the stuff comes to market in bad shape neither he nor any one else can sell it alongside of well-graded stuff in clean sacks.

PROSPECTS in Pennsylvania and New York point toward a very light cabbage crop this fall. This condition is reflected in prices. Erie county growers are shipping cabbage at \$30 to \$35 a ton delivered at the car door.

Grading and Marketing Tour Held

A FARM products grading and marketing demonstration tour was conducted during the week of October 8th in the farming sections of six counties of western Pennsylvania. The tour was sponsored by the Pittsburgh Chamber of Commerce and several cooperating agencies.

Studies made by the Agricultural Committee of the Chamber under the chairmanship of T. D. Harman and by T. C. Foley of the Chamber's Natural Resources Division had proven that a very large proportion of the food products now brought into Pittsburgh from distant states could and should be supplanted by the products of nearby farms. Over a five-year period Pittsburgh has received an average of nearly 3,000 carloads of late potatoes annually. Of these less than 15 per cent came from Pennsylvania; most of the rest came from states so far away that the freight alone would make a handsome profit for the local grower. With eggs, fruit and other products the situation is similar.

The principal reason for this condition is that most local farmers don't practice the careful grading and packing demanded by the best trade; that many city buyers are wary of local products on account of their uncertain quality; that receivers are willing to pay high freight rates to get farm products of high quality graded to a uniform standard.

The whole problem was recognized as one of properly preparing the local products for market and creating a demand for them among local buyers. The net result was that a grading and marketing demonstration tour was arranged by Mr. Foley and the Agricultural Committee in cooperation with Chambers of Commerce in nearby towns. State College extension specialists and the county agricultural agents of the counties where stops were to be made—Allegheny, Washington, Beaver, Lawrence, Mercer, Butler.

Four extension specialists from the Pennsylvania State College devoted the entire week to the demonstration tour: J. B. R. Dickey, agronomy and potato specialist; J. L. McCarty, extension horticulturist; H. H. Kauffman, poultry specialist; H. N. Reist, extension agricultural economist.

The first stop of the week was at the farm of J. B. Cole of Wexford, Allegheny county. The program at the Cole farm was typical of that followed at each stop throughout the tour. County Agent Henry R. Eby, of Allegheny county, explained the purpose of the tour and introduced the extension specialists who conducted the grading demonstrations.

Mr. Dickey graded several bushels of potatoes according to U. S. Standard Grades, using a commercial grader which was carried throughout the tour on a truck especially fitted out for the purpose. Mr. Dickey explained that grading is of unusual importance in seasons like the present when potatoes are abundant. Ungraded potatoes cannot compete with uniform, high-quality stock. Due to their fortunate location, Allegheny county growers can sell field-run stock easier than most farmers. However, by neglecting to grade they are letting the outsiders take the cream of the business.

The use of U. S. Standard grades for apples was demonstrated by Mr. McCarty. Using one of the standard packing devices he put up a bushel basket of U. S. Number 1 apples that equaled in every

respect the fancy apples imported from the West. Some of the farmers present could hardly recognize this ordinary Pennsylvania fruit after it had been sized, graded and packed according to the standards used by good commercial apple growers.

In discussing the problems of supplying the kind of eggs the Pittsburgh market demands, Mr. Kauffman stressed three points the farm poultryman must remember: external quality, internal quality and packing. The first includes uniformity of size and color and cleanliness of shell; internal quality has to do with the freshness of the egg and its freedom from internal defects. Mr. Kauffman showed the types of cartons and cases in demand by the egg trade and explained how to pack the eggs to avoid breakage in shipment.

The Grading and Marketing Demonstration Tour made other stops as follows: Washington county, Canonsburg, farm of McClelland Brothers; Washington, farm of John Pedicord, Beaver county, Baden, farm of J. W. Haberman; Darlington, farm of H. N. Hazen, Lawrence county, Elwood City, farm of George Friday; New Wilmington, Rank-Johnson farm; Mount Jackson, Dave Byler farm.

Other stops were made in Mercer county near Mercer and Sandy Lake, and near Butler in Butler county.

THE state of Virginia has enlisted an aeroplane in its forestry service as a means of quickly detecting forest fires. During dry seasons it daily covers three counties in the thickly forested area of the state. If fires are discovered, the observer maps the area and at once reports back to the nearest sub-station where arrangements are immediately made to get the fire under control.

New Jersey Notes

THE New Jersey State Department of Agriculture has completed and will soon exhibit in parts of the state a motion picture to show its most important activities. Secretary Duryee will present the picture before the Pomona Granges, County Boards of Agriculture, luncheon clubs and other agricultural or civic organizations interested in seeing this educational production. Included in the film are various marketing activities, cattle and poultry inspection work and gypsy moth and Japanese beetle eradication. The work of the Bureau of Markets, Animal Industry and Statistics and Inspection is graphically depicted. An interesting scene is the work being done by the Japanese beetle laboratory of Moorestown.

AN increase of 34.3 per cent over last year's cranberry crop is evident, according to estimates received by Harry B. Weiss, Chief of the Bureau of Statistics and Inspection, from 95 growers representing approximately 60 per cent of the total cranberry acreage. It is estimated that the crop this year will be 135,000 barrels as compared with 75,000 barrels in 1927.

BOTULISM, better known as pasture disease or "forage poisoning", has appeared in nine counties in different sections of the state. According to the report of Dr. J. H. McNeil, Chief of the Bureau of Animal Industry, the disease appears in rather serious form, the present outbreak being different from previous ones as it is not confined to the eastern and southern sections of the state but has appeared in Mercer, Middlesex, Monmouth, Burlington, Ocean, Camden, Gloucester, Salem and Atlantic counties; 454 horses have been inoculated by the Bureau since the outbreak; 30 horses died before treatment. The prophylactic inoculation, using botulinus antitoxin, is the plan that assures a measure of success. This serum is being purchased by the Bureau and supplied without cost to veterinarians in areas where the infection has appeared, and also to the Bureau veterinarians who are assisting in the inoculation of animals.

HON. JOSEPH S. FRELINGHUYSEN will be succeeded by Clifford E. Snyder as President of the State Board of Agriculture. Former Senator Frelinghuysen retired on July 1. He had served for 17 years as head of the Board of Agriculture. Elmer Wene of Vineland was elected to fill the vacancy caused by the election of Mr. Snyder who for two years has been vice president. Mr. Snyder is one of the best known agricultural workers in Hunterdon county, having been active in his own extensive farm and dairy business and in state organization activities.—B.

Agricultural Engineering

By R. U. BLASINGAME

Power for Silo Filling

IN view of the fact that the power companies of Pennsylvania are spending millions of dollars building electric lines, and farmers in this state are spending possibly about an equal amount in wiring their places and in the purchase of electric equipment, it is highly desirable to both parties concerned that these lines be loaded to the maximum with profitable energy consumption.

It has always been thought that a large power unit was required to fill a silo. However, reports from many sections of the country show that five and seven and one-half horsepower, electric motors are capable of filling silos up to 45 feet high.

Reports from Minnesota show that

is sometimes spoken of as the "wet process".

One may secure a manufactured vat, insulated with cork, or a vat can be built with concrete by the use of a layer of cork for insulation. The Portland Cement Association at Chicago has developed designs of both the vat type of insulated refrigerator and the so-called dry type of box built of concrete and insulated with cork.

To these two different types of milk coolers can be attached a small compressor driven by a suitable motor such as is commonly used for electric refrigerators for the home and for ice cream boxes so commonly used at soda fountains.

Considerable current can be saved in milk cooling if a surface cooler is equipped so that both water and brine can be circulated through the cooler.



RIGIDITY AND PERMANENCE ARE NEEDED IN CORNER POSTS

This farmer has solved the corner post problem by setting a piece of railroad track in concrete. Although 160 rods of No. 9 fence is attached to the post it is standing upright in good shape. Salvaged railroad iron is used for this purpose with apparently good results.

A five-horsepower motor filling a 32-foot silo consumed about one-half kilowatt hours per ton, with a capacity of six to eight tons per hour. This is about as fast as corn can be brought to the silo with three wagons and a haul of about one-fourth of a mile to the silo. Similar reports from Wisconsin show that a five-horsepower motor filling a 35-foot silo required 7 kilowatt hours per ton with a capacity of from five to eight tons per hour. In Idaho a five-horsepower motor filling a 42-foot silo consumed .89 kilowatt hour per ton, with a capacity of five tons per hour.

A Useful Book

Electricity Now Aids In Cooling Milk

THE refrigeration of milk at the dairy farm is becoming very common; in fact, in some sections of the country it has become a requirement before fluid milk can be sold. There are two problems in the refrigeration of milk: one is cooling and the other is the storage of the milk at a low temperature until it is disposed of. The cooling immediately after milk is produced is accomplished as rapidly as possible by the use of a surface cooler through which water or brine, or both, is pumped, bringing the temperature down to between 35 to 50 degrees F. In many cases where milk is handled in cans the cooling is accomplished by immersing the cans in water which is refrigerated to about 35 or 40 degrees. In this case the cooling and storage tank is one and the same. This system

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Wherever voters get together, that's what they're asking one another.

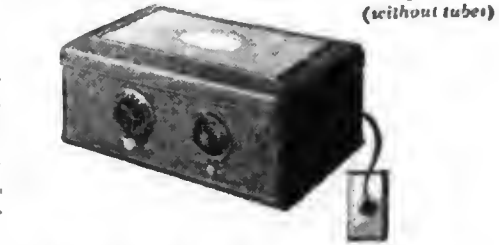
Now the radio battle for the Presidency waxed hottest, October is the crucial month. Powerful stations are broadcasting the voices of the candidates to all parts of the United States.

Hear this historic campaign clearly through an Atwater Kent. You won't miss a word—a syllable. Atwater Kent tone is famous for clarity. Atwater Kent workmanship can be relied upon. Atwater Kent resources make prices low.

Electric or battery—your choice. Some homes have central-station electricity, some don't. Both kinds want fine radio. So Atwater Kent offers modern instruments in two forms.

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MODEL 40 ELECTRIC SET
\$77
(without tubes)



MODEL 40 A. C. set. For 110-120 volt, 50-60 cycle alternating current. Requires six A. C. tubes and one rectifying tube, \$77 (without tubes). Also Model 42, with automatic voltage regulator, \$86 (without tubes), and Model 44, an extra powerful "distance" set, \$106 (without tubes).

about as much as reading a newspaper by the light of a single 40-watt lamp. Think of hearing Smith or Hoover for less than a cent!

With an Atwater Kent battery set the programs also come in clearly and strongly—whether you want speech or music—for the Atwater Kent name-plate on any set spells good, reliable reception.

Nearly 2,000,000 owners prove it

There's nothing untried about Atwater Kent Radio. Each year for six years it has set the pace in improvements, performance and price. Among rural families as well as in the cities, it is far and away the leader in sales and popularity. The nearest Atwater Kent dealer will be glad to give you a demonstration and advise you in the selection of your model.

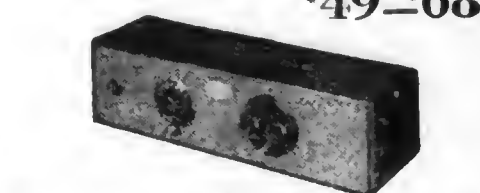
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Models E, E-2, E-3, same quality, different in size, each \$20.

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Solid mahogany cabinets.
Panels satin-finished in gold. Model 48, \$49; Model 49, extra-powerful, \$68. Prices do not include tubes or batteries.

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12 to 26 per cent of Feeding Value Wasted when Corn or Oats is Fed Whole

TESTS prove that ground cornmeal fed with an approved basal ration makes dairy cows 7 per cent more productive of milk and that the milk has a 14 per cent greater butter-fat content. Steers make gains of nearly one-half pound more per day than those fed on the usual roughage ration and whole grain. Surprising results have been secured with calves, pigs, poultry, and other live stock.

Corn Shellers

McCormick-Deering Corn Shellers are made in six styles and with capacities from 4000 bushels down to the limited output of hand shellers. They do a clean job of shelling and deliver the corn in fine condition for seed, feed, or market, with a minimum expenditure of power, labor, and money.

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Sold in three types for grinding all kinds of feed. Double-faced grinding plates fully adjustable for coarse grinding or pulverizing. Also a full line of elevators and attachments for increasing grinder utility.

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Make Biggest Savings—Profits!

Make all your feed from home grown crops. Save \$10 to \$20 a ton! Shorten the feeding period. Get bigger milk flow. Corn goes one-third farther ground on Jay Bee. "Kuenzi Bros., Helena, Mo., 'Jay Bee' ground oats take place of Shorts and Red Dog." J. Allen, Valley, Neb., 'Jay Bee' paid for self feeding one lot of cattle." F. Wynn, Palestine, Ill., 'Cows gained 214 lbs. milk a day.' J. J. Rucker, Antioch, Tenn., 'Jay Bee' saves 50% of feed bill." L. H. Bower, Oakfield, Ohio, 'Jay Bee' first cost is only cost.' Edgely Farm, Lake Co., Ill.

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A Barefoot Connemara Woman Posed for a Photograph.

An American Editor Abroad

Rocky Hills and Irish Hearts

WHEN one gets a traveler's check cashed in England or Scotland the banker will usually ask him to count the money. An Irish banker neglected to ask me to count and I failed to do it, for we were interested in a discussion of his country's business conditions, and our mutual neglect came near costing me £20. For he paid me £20 and some shillings when my check called for £40 plus.

I discovered the error an hour or two later and went back to see what he would do about it. He was most courteous and said he believed I was right but could easily prove it by his records. He looked up his memorandum, found how much the cashier had given him for me and handed out the balance with many apologies. I told him I was no mind-reader, but thought I could divine that he was wondering whether I would have come back if he had paid me £20 too much! Then he said he had paid a man £20 too much a few days earlier and had got his money back. He thinks business conditions are improving in Ireland, but he said that progress is slow.

Folk Songs and Fishing

I found a few persons who criticized the new government freely because it had imposed higher taxes. Some of the Irish towns which celebrated the removal of British army posts are not so sure now that they are the better for it. The officers and men quartered in a town spent money there, and their absence is felt by the local business men. On the whole, however, I think that the Irish of the Free State are disposed to accept the new order as more satisfactory to them than the old; and they have confidence in those now in authority.

My son was interested in Irish folk-songs. I was interested in trout-fishing. I have tried to interest him in fishing, hunting, horse-racing, football, baseball, prize-fighting and other arts and sciences but he prefers to grub away at music, literature and antiquities of several sorts. It is hard for me to understand how he can be so, but so he is. Well, Connemara was said to be a good place for both of us, so we went there on the train. At Galway we ran into a race week which filled up all the hotels, so we went on to Clifden.

Connemara is on the west coast of Ireland. It consists largely of rocks and loughs, with many humble farms and dwellings wherever there is soil

enough to farm. The cottages and hams are nearly all of stone, and the fences are practically all stone walls. It is a poor country, inhabited by people poor in worldly goods but not so poor in other ways. For they appeared to be rather rich in kindness, in independence and in courage. It takes courage to tackle those little rocky fields with the hope of making a living off them.

Many Emigrants

In some districts, where rocks are more abundant than soil, there are many tumble-down cottages. The owners have either emigrated to other countries or gone to other and richer land in Ireland. Connemara has furnished many passengers to America and they have prospered there. But they do not forget their relatives in Ireland and postal money orders from America are said to be an important factor in the finances of this region. We saw one girl who had returned from America. Her slang and her manners were in rather sharp but not highly favorable contrast to the talk and the manners of those who had never had the advantages of travel and employment in the new world.

I consulted the proprietor of a general store—including liquors—about a place to catch trout. The best places thereabouts were controlled by an Indian prince, whose turbaned servants occasionally drove into the village. But he found a place, a fine little lough five or six miles away, said to be full of trout; and then he found a man who would take care of me when I got there. The next problem was to get there, but he solved that by asking two Dublin men who were on vacation to take me along when they went past next morning. Then he arranged to have another man drive out and bring me back in the evening. Besides all that he escorted me to a store where I could find the proper flies, and helped me to select them. For all of this he refused any compensation, though it took time; but I tried to get even by a few purchases of necessities for a fishing expedition.

I went out to the lough as scheduled and fished most of the day. But these Irish trout were fully as reluctant as the Scotch fish to rise to the fly. I took only two trout, neither of them over ten inches in length, but they were the gamest fish I saw over there. They were brown trout, but their mark-

ings were different from any I have ever seen.

My guide, a young man with many patches on his clothes, was a competent one. He was also an interesting companion and I thoroughly enjoyed the day in spite of the stubbornness of the fish. I think he enjoyed it, too, for he asked as many questions about America as I did about Ireland. We took our lunch together, a joint effort of the landlady at the inn and my friend of the general store, and talked of many things. He acted not as a servant but as a man worthy of his hire. When it came to that he charged me five shillings, which included his wages and his boat, and he had left his work in the peat bog to help me enjoy the day. I increased his wage 50 per cent and left a few leaders and flies for his younger brother, who had gone some distance to find him in the morning. My friend in the village was much disappointed over my lack of fish and urged me to try it another day, but we had to move along.

Connemara is full of beautiful scenery both along the coast and back of it. Among the mountains are a dozen grey peaks that rise high above all the rest. They are called the twelve pins, and whether in mist or sunlight are equal in grandeur to those of much wider reputation in other parts of Europe. Ireland is now getting more visitors than ever before and deserves more than she gets. For her beauties are many and peculiar to her, and her people are interesting and not like any other.

A Picturesque Costume

The old Connemara costume is still worn by some of the women, the striking feature of it a bright red skirt. A black shawl is used on the head and shoulders. A barefoot woman on the way to market with her basket of fish on her back was offered a shilling if she would pose for a photograph. She was reluctant to accept the money but consented to pose, saying, "It's not for the money but for yourself that I'll do it, and God bless ye!"

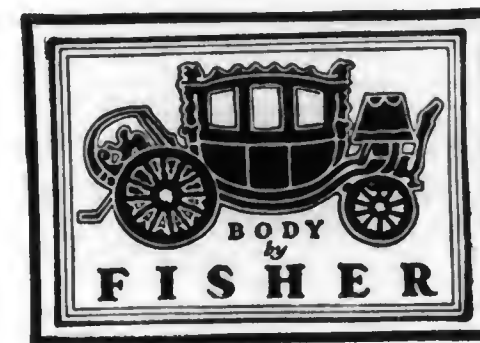
Julia Conroy has a little farm, six acres of rocky land on the hill which overlooks the village. She keeps an Angus cow, about 30 sheep and a donkey. The sheep have the run of some hill land not her own. The right to cut peat on the top of the hill also belongs to the farm. The cow fooled me. Looking up at her I thought she was a big one and of good shape. When I climbed up to where she was grazing I found that she was quite small but a good one. The little vegetable and flower garden was enclosed by a stone wall as were the fields, one of them the potato patch.

A Thatched Cottage

The modest cottage of stone and thatch, with its earthen floor and its little fireplace where peat is burned, seemed neat and clean. There was no stove for cooking, which is done on and around the open fire as in the early days in our own country. She said she got along very well, with the occasional aid of her son, and if she needed any money for an emergency would sell a sheep or a lamb and get it. Taxes were her chief burden, but she was able to pay them as they came along.

Julia is a singer of folk songs, some in Gaelic and some in English, and she sang while my son took down five songs, two of which have not been found thus far in any published collection. For her kindness and patience in singing them over and over while he recorded the music, he gave her a piece of money. She wasn't working for the money but to please a boy interested in Irish music. They parted reluctantly, her "God-bless-yes" following us until we were out of hearing.

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The West Virginia Schools

Favors Short Term

MR. W. D. ZINN: I wish to compliment you on your stand on our school term, as I have known you as a friend to our schools since you were county superintendent of our schools and I a boy in school over forty years ago. As a farmer and associated with the patrons of the rural schools, I have heard scores of the patrons express themselves in favor of not more than six months term and many of them claim that the pupils can do all the work of the eight months term in six months very easily.

I, for one, do not believe in giving people what they do not want and at the same time compel them to pay for it. Of course I believe the right to vote a longer term than six months should be provided to the district that wishes it. I believe the ordinary boy or girl can learn some of the most useful and practical lessons of life at home with their parents working six months out of the year and I have observed quite often the parents need the help of their children in spring when they are expected and compelled to be in school.

I also believe if we had more thrift and economy taught at home and in our schools it would be much better for the future of the people. I believe the most useful lessons of my life were those learned from the hard school of necessity. If our people would practice more economy and lay by for the rainy day that will come, and stop spending their money before they get it, 't would be much better for all of us.

C. J. STANSBERRY.

Taylor county, W. Va.

Would Be Disastrous

I HAVE read in two different issues Mr. Zinn's comment on the six-month term of school for the country girls and boys. Nothing in the world could be more disastrous to the farm problems of the future than the thing Mr. Zinn is writing regarding rural schools.

The reason that farm conditions have been bad in the past few years is largely, if not altogether, due to the ignorance prevalent among the farm population. Industry appreciates the value of educated men who have visions and adjust their manufactured products to the ever changing need of society. The farmer on the whole is without a vision and has remained pretty much in the old rut. Never was there a greater need of our country than better educated people on the farm.

Having taught in rural high schools five years and farmed for the past five years, I think I am in position to know something about the needs of the farm girls and boys who are to carry on in the future. Personally, the greatest drawback I have to come in contact with, although I live in one of the best rural sections in West Virginia.

CLAUDE STROTHER.

Children's Rights

AFTER reading the articles by A. J. Legg and C. E. Allman I would like to say a few words about the West Virginia public school system. I think the eight-month term is all right for the city or town or all unemployed children, as children who are idle ought to be in school all the time. The children out in the rural districts don't need as long a term since they are being trained in agriculture and at the same time helping their parents.

I knew a father and mother who had a large family and sent their children

to school when they needed them at home. They were poor and could hardly keep the children fed and clothed. Just as soon as the three oldest got their diplomas the school teacher would not allow them to go to school any longer. Now what I am driving at is this, why should not these children have the same rights as the city boy or girl? Just when they got interested in getting an education they have to quit. Is this equal rights?

Should Provide a Way

Poor people in the rural districts are not able to send two or three to high school and pay their board. I think the lawmakers should provide a way for such children. I don't think it is right to make them go eight months then about the time they are 14 or 15, the critical time in their lives, not have the privilege to go any longer.

Another reason for a shorter term for farm children is that every one knows how the children of the farm who have had work to do forge ahead of their mates of the same age who have had no work to do, no problems to face.

I hope others will write and tell what they think, especially about the rights of the rural children. E. L. G.

The School Lobby

I HAVE read the letters concerning the eight-months' rural school term in West Virginia. An effort was made to get this question before the Legislature at the last three sessions. Proponents of the six months school bills found that they were up against a well-organized lobby. In 1925 Senator Baker introduced a six months' bill in the Senate. In order to get consideration by the Senate the bill had been, very wisely, referred to the judiciary committee. The bill passed the Senate by a vote of 18 to 8. The lobby got busy, delayed the matter, preventing action in the House.

This was just the change of law that the people of my section were asking for. It prevented no district from having a longer term if a majority of the people so desired. One county superintendent told me that every teacher but one in his county favored the Baker bill. And he knew of no patrons and taxpayers that were opposed to it.

Again Introduced Bill

At the 1927 session I, again a member of the Legislature, introduced the identical Baker bill in the House. The chairman of the education committee refused to take this bill out of the clerk's files and other somewhat similar bills had a hard time getting consideration in his committee. Everything was held back for the so-called county ant plan which, I was told, would mean three million dollars added to the costs of our school system. Perhaps that is the reason that the county ant bill failed to come out of committee.

We think that the people who are standing for the high cost of schooling should have representation. Why not local self-government? The school system ought to be on a business basis. I called attention that the public school near my home was costing the taxpayers between \$15 and \$20 per child for each and every child in school and yet our efforts at Charleston to get the school system entirely under local control were entirely unavailing. There are more teachers than schools. One who failed to get a school and cut a week's substituting decided that it would "pay for her winter's schooling."

C. B. A's reply to Mr. Zinn sounds like the big talk you hear in the capitol lobby. W. W. STANLEY.

Greenbrier county, W. Va.

Friendly Talks

By Edgar L. Vincent

A GREAT many times I have heard a farmer folks mourn because "it is so lonesome in the country. Nobody, often, to speak to for half a day at a time." And I know all about that. It has been my lot to spend many a day from morning till noon and from noon till night away on my farm with no one near to talk to.

But I have learned that we may have company all the time while away on such work. Often I have taken along with me some good book or paper, and when I tired of the work I was doing, I sat down and let these friends of the printed page speak to me while I was resting. Many a good suggestion have I gained in that way, things that will stand me in good stead as long as I live.

Read a Good Book

And I have passed this good idea along to my wife and other friends who call at our house. Some women who get tired of the every day round of life have the happy faculty of sitting down at the piano and passing away a half-hour that might otherwise be lonely. For those who are not thus fortunate, let me commend a magazine, paper or a sensible book. Notice that I have described the thing to be read as sensible. No use spending time on books, papers or magazines which bring nothing worth while to one's mind. Life is made up of the things we take into our minds. We cannot build a good, all-round character out of wood, hay or stubble, and I am sorry to say that a great deal of the literature now coming from the press is nothing but rubbish, or worse.

So we may brighten the hours on the farm by getting a little book on birds and flowers we can do still more to add happiness to our farm home life. Never ought we to say or to feel that life on the farm is a burden. It ought to be to us the most beautiful place on the face of the earth. It will be if we make it so.

Alfalfa and Sweet Clover

I have been advised that it is impossible to grow alfalfa or sweet clover on level land, due to winter killing which is caused by a lack of adequate drainage of surface water. Kindly advise me through the columns of Pennsylvania Farmer if this is so when the acidity of the soil has been neutralized as well as being fertile to the extent that it will produce 50 to 60 bushels of alfalfa per acre. Which of the regular clovers is better adapted to level land? STAUB BROS.

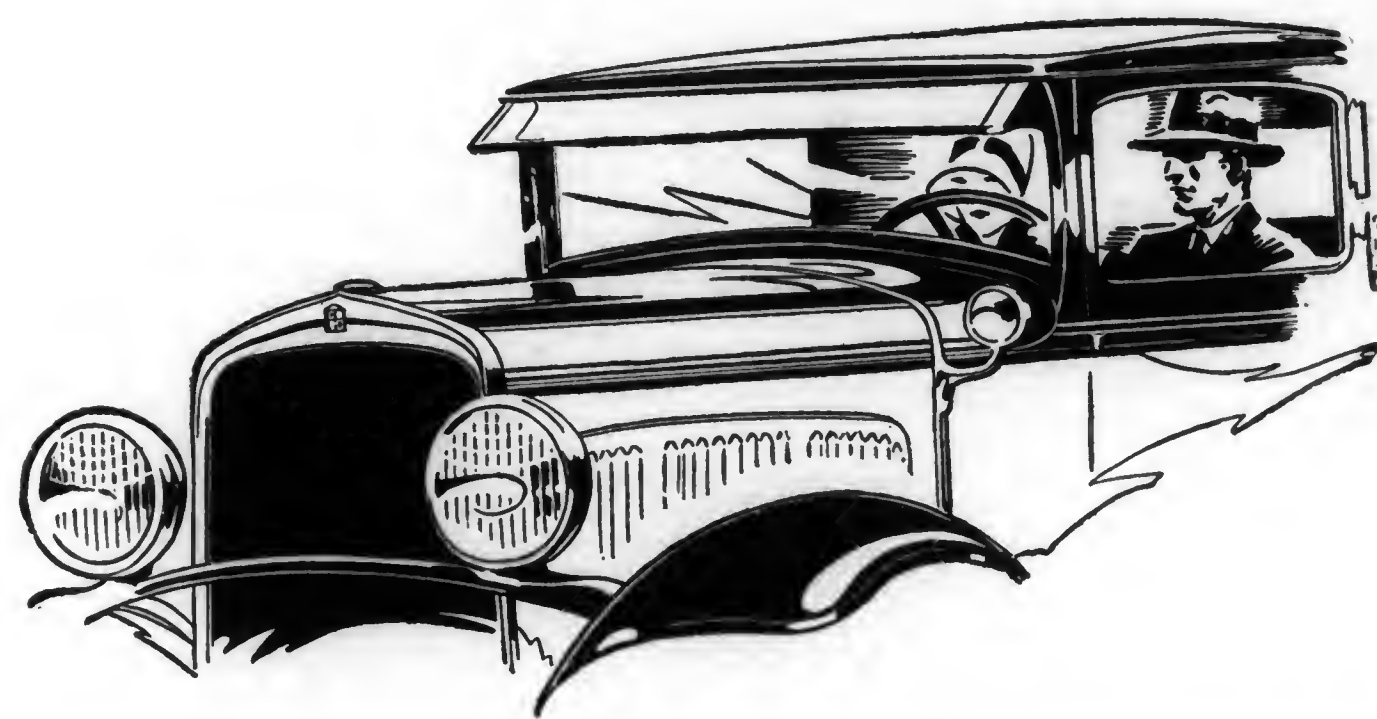
The statement that alfalfa will not grow on level land has been disproved by hundreds of farmers. Neither alfalfa nor sweet clover can be grown successfully on level land that is poorly drained or on land so impervious to water that it is slow in getting off. On such land these legumes are apt to heave badly. Alfalfa does best on a pervious soil from which the water gets off readily. Alsike clover is the best of the clovers for wet land and the reason is that its roots are like the roots of timothy and feed near the surface. It does not have a taproot like red clover. W. D. Z.

COMING EVENTS

Nov. 6.—Third Holstein Ass'n Annual Meet., Port Allegany.
Nov. 7.—First Holstein Ass'n Annual Meet., Port Turtle Point.
Nov. 8.—McKean County Ayrshire Association Annual Meet., Cora.
Nov. 12-17.—Montgomery County Farm Products Show, Norristown, Pa.
Nov. 27.—Annual meeting, Smetthport.

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Your "Farm Service" Hardware Men



It Is Time to Get the Garden Ready for Next Year

By GILBERT S. WATTS

EARLY in September we made our first sowings of rye for a green manure and cover crop. Four patches were sown on the same date, one of which had been prepared sufficiently fine and smooth for an onion seed bed. Two pieces were prepared very well, but the fourth was not pulverized as firmly as it might have been. On the three properly prepared areas the rye came up in only a few days. On the rough area germination took twice as long and the stand now is irregular. Today the ground is covered completely, except



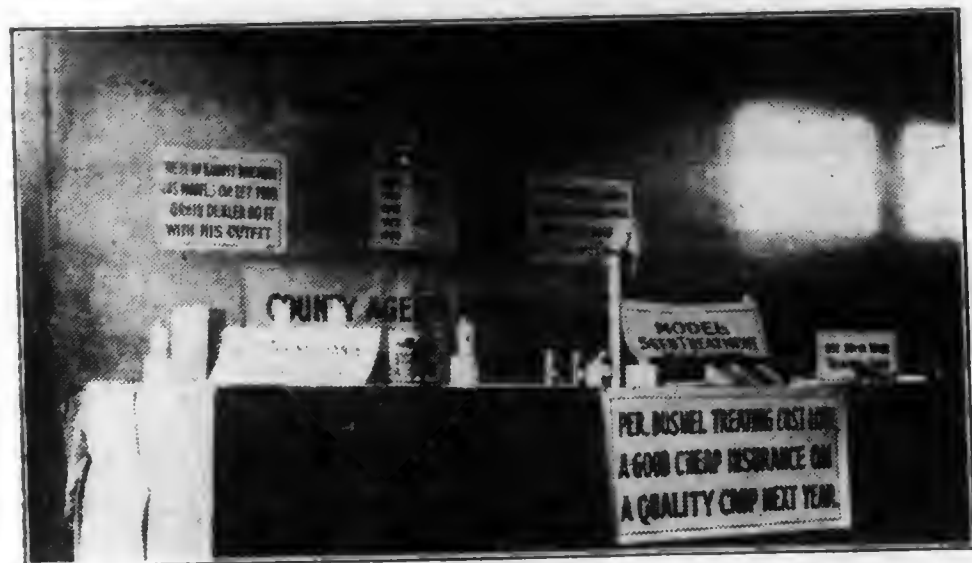
on the piece which we slighted in preparation. Even on this piece the stand and growth are excellent at the ends where the soil received quite a lot of additional harrowing because the tractor-drawn disk and cultipacker passed over the same strip several times in working out "lands." Although rye is an exceptionally hardy crop and although it may be planted to plow down it does not follow that one can slap it into the ground any way at all and reasonably expect the maximum benefits.

ALL is here we are assured by a number of signs. Brilliant yellows, golds and a dozen shades of red blend in a glorious symphony of color on the ridges of the Allegheny Mountains bordering our narrow valley. Another sure sign of autumn, and this also is a sign of spring in its season, is the smoke that rises from countless gardens where ambitious town, village and even farm home gardeners are engaged in burning rubbish or garden trash as it is called. More exactly most of them are burning dead corn stalks, tomato plants, bean vines, weeds and so forth. All this material is very valuable when incorporated with the soil. Elements of plant food are returned and humus forming organic matter is saved. If a clean job of spading or plowing is done now many insects and diseases which overwinter in rubbish are controlled practically as effectively as when crop refuse is burned.

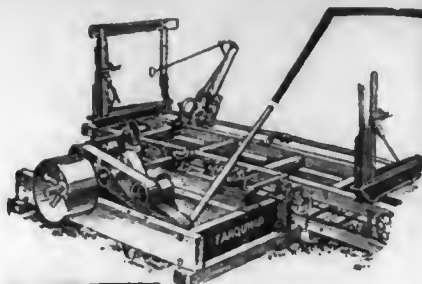
Then to class oneself as a master gardener the thing to do, after turning under all refuse, is to sow a quart or more of rye (or wheat if rye is not available) to every 400 square feet of garden area. This can be done successfully as late as November 1st. In the spring when the resulting green manure is plowed down the decomposing material turned under in the fall will be brought back in the upper layers of the soil to feed the plants, to retain moisture and to provide that friable easily worked physical condition that characterizes a good garden soil. When such a course is followed it will not be a critical matter if a load of stable manure cannot be secured for the garden. One pound of a good potato commercial fertilizer broadcasted for every 20 square feet and thoroughly harrowed or raked into the soil before planting will provide food for bumper yields.

A FEW days ago an automobile bearing a Florida license plate stopped at my market. The owner informed me that he wanted "several of every kind of squash and pumpkins" I had. Before he was through my curiosity got the better of me. He had at least a barrel of the things: Hubbards, blue, green, golden, and warted, white patty pans (cynilings), Boston marrows, turban, golden crooknecks, green and white striped cushaws, little yellow Panama squash, acorn-shaped Des Moines squash and some pumpkins. When I asked what was to be done with so many varieties my customer told me he was an interior decorator and that he uses great quantities of various vegetables in connection with elaborate decorative effects. In addition to such things as gourds, squashes, pumpkins and corn he uses cleanly polished carrots, golden ball turnips, purple top turnips, parsnips and some others. Indeed many vegetables are truly beautiful, a freshly pulled scarlet radish with vivid green leaves. Eye-catching artistic displays of any vegetables are possible whether on market table, on truck, or in the retailer's store. Such displays provide a very definite means of increasing sales and in addition have the advantage of requiring little or no outlay inasmuch as the goods to be sold constitute the display material.

Gives Message to Wheat Growers



County Agent Ed. William, Jr., of New Castle county, Delaware, presented the above exhibit at the Wilmington Fair, September 24-29. How to treat wheat for stinking smut, the value of it and the results of the campaign to get rid of smut in the county during the past three years are the high points of the picture.



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The MARKET PLACE

By W. R. WHITACRE

THE importance of an export market and the development in transportation were illustrated this month when 40,000 barrels of Virginia apples were shipped to New York for export to Buenos Aires. This was the largest shipment of Virginia apples ever made at one time as there were fifty-five cars in the trainload. These apples were loaded at the piers at Jersey City directly on the Steamship Edda, one of the most modern refrigerated boats in service. Furthermore, the entire shipment consisted of U. S. No. 1 grade apples.

Neat Package Important

This was a remarkable accomplishment even for today, but when we look back ten or fifteen years it seems even more striking and shows the progress that the apple industry has made. It is a good thing to get the other fellow's viewpoint and Edwin Smith, of the U. S. Department of Agriculture in a report on the British apple market tells of the importance of a neat package. The points that he outlines are good common sense and not only apply to apples for export but also for those which are to be sold in our own markets. He states:

"Apples exported from western New York state are quite universally stenciled in a neat and distinct manner. Other barreled apple districts of the United States are not entitled to this commendation. The marking of apples is a very important matter. It discredits a good pack of apples to mark them with an indistinct rubber stamp, or with a stencil that leaves blurred or smeared lettering. Clear and regular stenciling gives a package a business-like touch which impresses the buyers. A stencil which fits the barrel head should be used and it should indicate name and address of packer, variety, grade, size and country of origin in clear-cut lettering. Very frequently indistinct lettering, usually resulting from a rubber stamp, is the cause of barrels being incorrectly catalogued for auction sale. Light in the dock sheds is none too good, especially when ships are discharged at night, so that it is small wonder that poor marking causes many incorrect classifications."

This report was written some time ago so I imagine by this time all Pennsylvania, New Jersey and West Virginia apples are being marked distinctly.

New Name for Ben Davis

Talking of marketing apples reminds me of a lot of nearby apples that I saw some time ago labeled RED BELL-FLOWER. They were a pretty red apple but they had the characteristic appearance and flavor of the Ben Davis and what is more they were Ben Davis. I do not believe that many buyers were misled as it takes more than a fancy name to fool them.

The apple harvest is in full swing in New Jersey and growers report a record crop. Growers in the Glassboro section state that they are picking the cleanest crop that ever came out of their district and that they expect to put 350,000 bushels of fruit in storage, or around 100,000 bushels more than last year. The total crop in the United States was estimated October 1st at 177,500,000 bushels or 54,000,000 above the short crop of 1927. The high quality of this year's crop in Virginia and Maryland is also causing shipments from these states to exceed earlier expectations.

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DORSETS—We are offering choice yearling rams of good type, nice condition, suitable for cross breeding, as low as \$25.00 each, while they last. All stock on approval. TRANQUILLITY FARMS, Allegheny, N. J.

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HAMPSHIRE DOWNS.—Three full blood Hampshire down ewes and 3 yearling Hampshire down ewes. The ram clipped 10 lbs. 2 oz. last May. Will ship to address R. O. H. CASPER E. ENGERT, Hankins, N. Y.

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PURE-BRED GUERNSEYS FOR SALE. One cow, three years old; three heifers, aged, twenty, fourteen and thirteen months respectively. One bull calf, two weeks old. Wolf Creek Farm, R. 2, Slippery Rock, Pa.

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Ayrshire Bull calves from Grand champion stock. Rosemont, Pa. BARGLEY FARMS.

AYRSHIRES sired by Syracuse Governor Beggs, Jr., Champion Treadon Inter-State Fair, whose dam Burtie of Eastside, is the only cow of the breed with three R.H. records over 15,000 lbs. and whose sire is out of a cow with a record of 17,184 milk, 778 fat. Bulls ready for service \$100 to \$200; bull calves \$100 to \$150. Herd known for heavy production and long tested calves treated to prevent growth of horns. Herd Federal Accredited and blood tested clean for Abortion. SYRACUSE FARM, Berks Co., Penna., Douglassville.

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For Sale—Two purebred Holstein bull calves, two and three weeks old, both sired by 21-pound bull. Dams have good C. T. A. record. Herd free from P. B. and abortion. G. A. McCreath, R. 1, McDonald, Pa.

Prize Flocks Are Inspected in Northern France

By J. F. WALKER

WEDNESDAY, November 23, was spent in getting such information as I could concerning the sheep and wools of northern France and arranging for a trip to the government farm at Rambouillet near here. A trip was made to the headquarters of the Flock Books office and here we were shown how rigid the government is in keeping the records of the herds and flocks, all of which is done by the government. Nose prints are taken of every animal recorded and these go with the pedigree of the animal when exported. All flocks are inspected yearly by the government expert when the lambs are twelve months old and only such individuals as are deemed worthy are recorded. The official tattoo of the Department is put in the ear and a nose print taken which positively preserves the identity of the animal during its life. A very effective method.

This morning, the 24th, we arranged to go to the government farm at Rambouillet to inspect the flock there and again had to hire an interpreter, another lady. As we drove to the station she pointed out the spot where 2,245 people were guillotined during the French Revolution. I told her that was nothing, that ten times that many people lost their heads every Saturday afternoon in America during the football season. The modern Frenchman wears a short thick neck to provide against any such contingency in the future.

No Blue Blood in 141 Years

The flock at Rambouillet has had no outside blood introduced into it since its original purchase of 318 ewes and 41 rams in 1786 and today the sheep are very robust and much larger and shear more than when originally introduced and have always been held to a plain type. This shows that inbreeding can be carried on to a great extent if one understands his business, also that the constant introduction of heavy blood is not necessary to retain fleece weight. The sheep are about the size of our Delaines, somewhat shorter in fleece, wool of good quality. The ewes average about 13 pounds for the flock of 800 head while the heaviest ram last year sheared over 39 pounds.

We got back to Paris at 2:00 p. m., in time for a somewhat belated Thanksgiving dinner at the Chicago Inn presided over by an American negro. We ate until 4:00 o'clock and concluded to call it a meal and quit. We asked a French waitress what cranberries were and she said "American cherries". This is the second American meal I have had in nine months and I sure did do justice. The plume was full of native tongue reminded me that I was almost forgetting some of its best features. In fact I thought of the negro soldier in France who one day approached a Senegalese and said, "Boy, what all regiment do you belong to?" The Senegalese jabbered an answer and the

negro said, "Listen, boy, talk sense to me. I don't care for no funny language,"

and again he heard some more unintelligible jargon. He turned away in disgust and walking down the street met his buddy with the remark: "What do you think? I just met a nigger that don't know his own native language." Which reminds me of a letter of introduction given me by the head of the Department of Agriculture to the Director of the Rambouillet farm. After telling him who I was and so on he concluded his letter as follows: "With all my thanks for anything which you believe it is to do on this occasion I ask you to agree, Dear Sir, to the assurance of my best sentiments." We would say "Thanking you for your courtesy in the matter I remain yours truly." The French are certainly polite in their correspondence.

Mutton Type Merinos

November 27th, Friday, was spent in studying the mutton type Merinos of France or Soissonais Merinos. The best flock of this breed, which has been developed through selection from the Rambouillet stud, or troupeau as the French say, is that of Monsieur Leveque near Oulchy, a flock of about 600 head. M. Leveque is President of the Association and a very fine type of Frenchman, keen in his business and operating a very up-to-date farm. This place was occupied by the Germans during the war and the flocks were saved by driving them away before the Germans arrived. The sheep are of excellent form, in fact the best formed Merinos I have ever seen. The wool is of good length and of fair quality but not so heavy in the fleece as those at Rambouillet, the rams shearing 13 to 18 pounds and the ewes from 11 to 13 pounds. Lambs at ten months old acquire a weight of 140 pounds, which is certainly good. The lambs are kept housed all the time and the ewes turned out on grass during the day and housed at night. Lambs are provided with creepers and oats and bran and alfalfa are fed to them.

One is impressed with the recovery the French have made in their agriculture since the war. We passed over the scene of the battle of the Marne and about all one sees to remind him of the engagement is the surrounding country are a few tree trunks riddled by shell fire. Even the most of these have been cut down and new forests, now reaching 30 to 40 feet in the air, have replaced those destroyed only a few years since.

Secretary B. H. Heide of the International Livestock Exposition and Grain and Hay Show announces that entries in the individual classes close November 1st. Breeders who are planning to exhibit at this year's show, which will be held at Chicago, December 1-8, should get in touch with Mr. Heide at the International Exposition office, Union Stockyards, Chicago, Ill.



The Baby Beef Show at the West Virginia Four-H Round-up held during the Lewis County Fair. The animals were sold in Pittsburgh, Pa., through the producers' cooperative marketing organization.

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LARGE BERKSHIRES.—Service Boars, Gilts bred and unborn. Pigs unweaned. The very best. GEO. W. DOZER, South Zanesville, Ohio.

REGISTERED BERKSHIRES Superior breeding stock. Pigs, Gilts. Wolf Creek Farm, R. 2, Slippery Rock, Pa.

PIGS Pine, Splendid, Typy, Thrifty Berkshire Sow pigs, 6 mos. old, register. W. E. MOFFATT, Furness, Pa.

Chester White Pigs Properly mated, for breeding purposes. Canonsburg, Pa. R. L. MUNCE.

Chester Whites Big Type Chester Whites, from 100 lbs. and over. Prize winning herd. Stock for sale. H. H. Werking, Woodstock, Md.

CHESTER WHITES.—Pedigreed big type. Can blood, all ages, 13 sows fattened 12 lbs. pigs, 10 lbs. must please. G. E. Cassel, Herby, Pa.

Chester Whites (Champion blood) Pigs, Gilts & L. O. COLEMAN & SON, Beech Creek, Pa.

75 CHESTER WHITE PIGS.—Grade pigs, 4 weeks old, \$5.00. Pedigreed stud sows. STANLEY SMITH, Lewisburg, Pa.

CHESHIRE.—The quality white pig for Eastern Farms. See MORNINGSIDE FARM, Sylvania, Pa.

Duroc Jerseys Service males of the large prolific type. Full pigs either sex. C. J. McLaughlin, 206 Kresge Bldg., Lancaster, Pa.

DUROC GILTS bred for October farrow. Also service boars. Special price for September. E. H. JOHNSON, West Liberty, Ohio.

Registered Big Boned Poland-Chinas pigs and gilts for sale. Excellent breeders. Ligonier, Pa. W. B. Williams, Ligonier, Pa.

Poland-Chinas Spring gilts and boars ready for service. Trial sows and full pigs. Ralph Campbell, Ligonier, Pa.

Reg. Spotted Poland-Chinas.—Spring gilts and boars ready for service. Full pigs at 8 weeks, \$10.50 each. A. M. KENNEL, R. 2, Honey Brook, Pa.

Spotted Poland-Chinas—Huge big Spotted Poland-Chinas and make good money on your hogs. CHAS. BOYD HAMMON, Shiloh, Ohio.

BIG TYPE POLAND-CHINA spring hogs. Good quality, growing and tenderly bred. Write wants. O. C. POWELL, Ada, Okla.

O. I. C.—Bred gilts, spring pigs, 4 weeks old, \$10.00 each. C. G. Fisher, Collinsville, Mo.

HAMPSHIRE Hogs—The time will soon be here when you will need that hour. There will be a scramble for the good ones. Get your order in early. The quality lasts. Some open gilts. Write wants. R. L. St. Louisville, Ohio.

Reg. Hampshire Swine, all ages, double tested service boars. Write your wants. Good Stock & Poultry Farm, Summit Point, W. Va.



L. E. CRAMER County Agent

Buffalo Valley Obtains High Results

THE Buffalo Valley Cow-Testing Association, operating in the famous Buffalo valley, Union county, Pa., finished its second year, July 1, 1928.

The Association was organized during the winter of 1919, and operated for three consecutive years. The results of the three first years are as follows:

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1920	334.58	7,172	256.7
1921	287.52	6,962	241.9
1922	152.93	8,836	273.0

The county-wide campaign for tuberculosis eradication which began during the latter part of the year 1922 and continued for a period of four years, prevented the interest in cow-testing association work. On July 1, 1927, the Association was reorganized with eleven of the charter members.

During the past year the Association, comprised twenty-five whole-year and two part-year members, with 399 cows during all or part of the year. Fifty-seven cows were sold for dairy purposes, six cows died, two reactors were slaughtered, and twenty-nine unprofitable cows were slaughtered for meat purposes.

The Association has obtained the highest results in butterfat production ever achieved in cow-testing association work in Pennsylvania, and it is the third Pennsylvania association which has passed the goal of an average production of 10,000 pounds of milk per cow. These results were produced on twice-a-day milkings, with the exception of the following members: A. C. Slifer and W. J. Erdley, who milked three times a day for five months, and A. D. Beaver, who milked three times a day for six months.

The Association has made the outstanding record of having 24 out of 25 whole-year members in the 300-pound butterfat class, and seven of these members' herds produced an average of over 400 pounds of butterfat.

Twenty-three herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. A complete list of these herds follows:

Owner's name and address:	Av. No. Cows	Breed	Lbs. Milk	Lbs. Fat
A. C. Slifer, Lewisburg	5.83	R.H.	12,640	459.0
A. D. Beaver, Vicksburg	6.33	R.H.	12,520	458.1
A. J. Brown, Lewisburg	7.50	R.&G.H.	13,528	454.0
H. K. Bower, Vicksburg	8.75	R.&G.H.	12,115	424.7
Field D. Dock, Lewisburg	12.83	R.&G.H.	11,842	418.2
H. A. Walter, Lewisburg	11.58	R.&G.H.	11,796	405.0
C. E. Eddy, Lewisburg	16.17	R.H.	12,404	399.3
W. J. Eddy, Mifflinburg	9.17	R.H.	11,877	397.2
W. S. Eddy, Lewisburg	11.58	R.&G.H.	11,248	387.8
J. L. Rott, Lewisburg	18.42	R.H.	10,232	373.5
P. C. Moss, Lewisburg	9.23	R.H.	10,662	368.1
J. S. Eddy, Mifflinburg	11.17	R.H.	11,281	369.0
R. E. Moss, Lewisburg	11.33	R.&G.H.	9,699	360.0
P. W. Young, Lewisburg	7.22	R.&G.H.	9,540	356.9
A. J. Roush, Winfield	14.17	R.&G.H.	9,747	346.0
J. S. Zeigler, Lewisburg	12.08	R.H.	10,688	345.1
H. B. Mill, Mifflinburg	10.92	R.&G.H.	8,490	331.0
G. B. Hark, Lewisburg	13.75	R.H.	9,307	322.3
Oscar Brown, Mifflinburg	7.00	R.S.W.	7,957	321.1
Geo. B. Froderick, Lewisburg	17.17	R.&G.H.	9,239	318.6
J. M. Eddy, Lewisburg	12.92	R.&G.H.	8,923	314.5
E. B. Elhardt, Winfield	5.75	R.&G.H. & Gr.G.	7,802	311.6
Clark S. Miller, Lewisburg	16.17	R.&G.H.	8,729	307.7

Individual Cow Records

The following is a grouping of all cows producing over 300 pounds of butterfat:

Group 1. Above 600 pounds butterfat.....	1 cow
Group 2. Between 500-600 pounds butterfat.....	11 cows
Group 3. Between 400-500 pounds butterfat.....	50 cows
Group 4. Between 300-400 pounds butterfat.....	102 cows

Total 164 cows

(Figures compiled by I. O. Sidleman.)



FLOYD L. COLE Cow Tester

The results of the last two years are as follows:

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1927	297.49	8,994	308.0
1928	272.76	10,313	363.2

The results for the Association are as follows:

Average number of cows in Association	272.76
Average per cow:	
Pounds of milk	10,313
Pounds of butterfat	363.2
Percentage of butterfat	3.5
Value of product	\$280.68
Cost of pasture	5.60
Cost of roughage	39.92
Cost of grain	74.44
Total cost of feed	119.96
Value of product above feed cost	160.72
Returns for \$1 expended for feed	2.34
Feed cost per 100 lbs. milk	1.16
Feed cost per lb. of butterfat33

HON. WILLIAM C. NORTON

HON. W. C. NORTON, formerly of Waymart, Pa., died last month at the home of his son, Dr. E. S. Norton, at Greenville, Miss. Mr. Norton was for many years a breeder of Jersey cattle. In his earlier days he bred and exhibited Berkshire hogs, and if we are not mistaken was the first man in Pennsylvania to pay \$1,000 for a pure-bred hog, imported by the late T. S. Cooper. Mr. Norton was one of the founders and the President of the Pennsylvania Livestock Breeders' Association, which started the movement resulting in the present Farm Products Show at Harrisburg. He served in the legislature and later was connected with the Pennsylvania Department of Agriculture, but retired some years ago on account of advancing years and failing health. He is survived by his sons, O. M. Norton and E. S. Norton of Greenville, Miss., and A. E. Norton of Herrick Center, Pa.

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UNION GRAINS can now be bought in five forms. Every one of them is highly palatable. Eight different concentrates—exclusive of the minerals and molasses—are used in making UNION GRAINS. Such a mixture assures a tasty feed—and cows like it. Moreover, the mixture insures a completeness of protein that is essential to the health and heavy productivity of the cow.

There are no oat hulls, oat feed, mill screenings or any other kind of mill offal in UNION GRAINS. None but the choicest, most wholesome ingredients are used in any of the five types of these outstanding feeds. One of the five UNION GRAINS will fit into your feeding program—no matter what you use as roughage.

For instance, if your cows are on pasture, feed 16% Sweet UNION GRAINS.



If you feed alfalfa, clover, soy beans or pea vine hay, buy 20% Sweet UNION GRAINS.

With mixed hay and corn stover, with or without silage, 24% Dry or 24% Sweet UNION GRAINS will give the desired balance.

If you feed timothy hay and corn stover, with or without silage, and have some corn or oats to add, 32% Sweet UNION GRAINS will make the ration completely balanced.

Figure it out for yourself—raise what feed you can economically—then buy the particular UNION GRAINS that will produce the proper ratio between protein and carbohydrates for the correct balance.

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We will outline a complete feeding program for you if you will tell us what you raise for roughage and how many cows you have. We will also supply Union Milk Record Charts free of cost. Address

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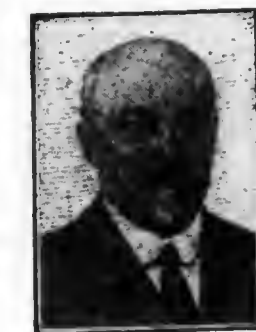
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Farm & Dairy

By L. W. LIGHTY

WE are liable nearly always when we read the stories of extraordinary production to take it for granted that the results are profitable. While it is a fact that within a certain range of increase there is an increase of profit, when we get beyond that we may reduce the profit until in not a few cases we realize a loss instead of a profit.



But every time I read of extraordinary production to the acre, wonderful weight of a hog or a litter, immense milk production of a cow, the question foremost in my mind is, what profit came out of it?

operation? A simple brag of big doings interests me little unless the financial account goes with it. I look and always did look on the business game as a business proposition, and to produce extraordinary units in size at a loss is surely not business.

A Sporting Event

That is the right name for it and it is that say so and we all understand. All folks love sporting events and a big acre yield or a very unusually large hog will give a thrill to those who are not within reach of the race track or those who hold conscientious scruples, but please when you report killing an 800-pound hog include the fact that it cost you \$20 per hundred or something like it. Of course we may win at the race track and when we are so lucky we display our smartness in many ways, but I will tell you a little secret. Every dollar I ever won cost me \$2.25, and my dollars were cheaper than many another's who was ever so much smarter than was I. But the thrill was worth the other \$1.25.

Another phase of these reports of big production I detest with all my heart. We are told the "labor cost" was so much or the "feed cost" was so much and all the other costs can go hang as though not worth considering. The consumers of our commodities get an entirely false impression of the cost of the things we have to offer by such careless and unjustifiable reporting.

I recall the great sporting event staged by a farm paper long ago, offering a thousand dollars in gold for the largest crop of corn to the acre. The prize was won by a man whose corn cost him more than twice the market price, but the prize gold helped him out. However, few of us are so lucky. Let us be honest with ourselves and our fellows and report our losses on extraordinary production—that is good sportsmanship.

The Cost Mark

Before I farmed I was a merchant. I knew my living would have to come from the difference between the cost of the goods I bought and the price I would sell them at, but experience was needed to place the correct cost mark, fifty gallons. The cost mark of a gallon should be symbols meaning 17 cents a gallon and I sold it at five cents a quart. Soon I discovered if I hired the transportation it cost me 75 cents a barrel. Next I learned that the best I could do was to get 47 gallons out of a barrel in the retail way. Also I discovered that the rental interest and depreciation on fixtures and the cost of selling was nearly 40 cents per barrel and all this pumped my cost mark up to nearly 22 cents per gallon. My old competitor was selling the coal oil at six cents a quart. I got the trade and sold lots of the stuff, but surely it was nothing to boast about when I was out

of pocket about two cents a gallon.

Mighty poor living in that kind of business, but I want to put it up to the farmers: how many do have the actual cost mark on the products they sell? I care not how much you produce or how little, if you handle it on the basis I handled the kerosene in the beginning of my merchandising you will have to look for relief from the politicians and there I find we are not getting it. Therefore the remedy and the only practical remedy is to know just what a thing costs us before we offer it for sale and if it fails to bring cost and something above cost the thing to do is to stop just as I stopped selling coal oil at 20 cents when it cost 22 cents a gallon.

Butter has my special money crop for years with pork as a side issue, and I always used every effort to get at the exact cost of the pound of butter or pork. When the cost mark came too near the selling price I made a special effort to bear down the cost mark and boost up the selling price. Between the two lay my living and if I could not keep them both apart I had to stop living or do something else to earn it. This is business and the farmer needs to be a business man as well as a good farmer.

Short vs. Long Rows

Many a time did I make a plea for long rows in the field and possibly the pleas took some useless fences or obstructions out of the way. On my farm they were removed very early because I realized there could be no profit turning around at the ends twice where once would suffice. I have a small farm, yet I have corn rows 2,200 feet long. Before the obstructions were removed four turns were required.

The Ohio Station folks kept tab on the cost of such turning and found it cost 24 cents an acre more to cultivate an acre of short rows than an acre of long rows. I then took my pencil in hand and set down the turnings. On plowing, three harrowings, one rolling one planting, three cultivations, one corn binder, doing the thing ten times over amounting to \$2.40 an acre and, if my experience holds, the fences and the upkeep costs more than that, making our old middle fences rather an expensive luxury. But there are many folks who seemingly think those old fences are sacred because father had them and before him grandfather and dear knows how long they were there growing and disseminating weed seeds and harboring pests and vermin so some poet might come forth and write under the heading "Vandal spare that fence, thy grubbing hoe shall harm it not."

Yet I wish to say I have found sections in our state and neighboring states where all the useless fences have been removed and turnings are necessary only at the highway and the line between the farms, but a very big minority has not yet reached this stage of development in cutting down costs and making swear words unnecessary.

REDUCED RATES TO ROYAL

Rate and one-half for the round trip to Kansas City on the certificate plan from most parts of the United States have been granted on account of the third annual National Congress of Vocational Agricultural High Schools and the sixth annual Royal 111 Boys' and Girls' Club Conference, both of which will be held in Kansas City this year in connection with the American Royal Livestock and Horse Show, November 17-24. Visitors from states using this plan will buy a regular one-way ticket to Kansas City and take a certificate receipt issued by the place in Kansas City which will be validated at the place in Kansas City where these conferences are held, and when the visitor purchases his return ticket he presents this certificate and gets his return ticket at half fare.

Farm Conditions

Yuma Co., N. E. Colo.

Oct. 4: September was hot and dry, one-half inch of rain was all we got. Corn crop is fair and of good quality. Farmers are feeding snapped corn now. Pastures are short. Hogs this week brought 10c. Cattle scarce and high, any kind of cow \$100, spring calves \$40. Chickens 20c, cream 43c, butter 40c, eggs scarce at 28c, spuds so cheap lots will never be dug. Wheat 88c, poor quality oats 35c, barley 35c, rye 80c, apples \$1.50, pears \$3.50, peaches sold at \$2.50, grapes 35c basket, sugar 7 1/2 @ 8c. Meats getting too expensive to eat. A few public sales sell at good prices. Several farms sold already at fair prices. Cold weather is not so far off in October. Health of community fair. Farmers wanting corn pickers soon. Some are picking now but corn is not dry enough.

Warren Co., N. W. Penn'a

Oct. 10: Beautiful balmy weather. Several frosts but not killing. Farmers are busy harvesting crops. Potatoes not very good, corn not all ripe, no winter apples, cabbage not so plentiful as usual. Second crop of clover looking fine. Beef, pork and veal high but chickens cheap. We had snow for several days in September and the weather now looks like Indian summer. Deer plentiful, come out into the field for apples and corn. Prices are as follows: Butter 52c, eggs 55c, veal 20c, beef 18c, pork 16c, chicken 25c, potatoes \$1, apples \$1, tomatoes 45c per basket, peaches \$1.50 @ 2 per bush, grapes 60c. H. C. J.

Clearfield Co., Central Penn'a

Oct. 2: We have had a prolonged period of cool, dry weather, with the wind blowing most of the time from the east, but rain of any amount fails to come. Fall grain is mostly sowed and is near the



FOR 25 years farmers have preferred National Napa Goat—the original and genuine "goatskin" gloves. They outwear six pairs of canvas gloves yet cost only 50c most everywhere.

All-leather, durable, tough as iron, yet soft as kid. Keep the hands from chapping and cracking. Better for all work, all through the year!

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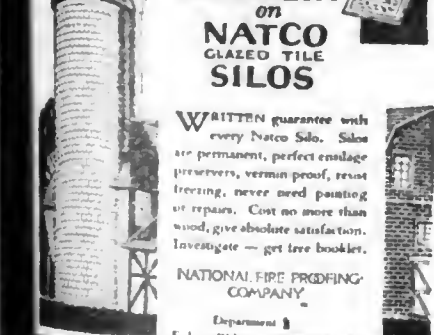
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usual acreage. Corn cutting is near completed. Light frosts and threat of colder weather hastened the work along. An unusual acreage of buckwheat and it is cut and stood up; appears to be fairly well filled. Apples a light crop and ready to harvest, being of good color. The potato growers are in a rush to get the crop in before wet weather arrives. As to quantity and quality there is a wide variation in the county, some not and some fields developed few and small tubers. Late cabbage is apparently very light, having lacked in moisture for good development. Pastures are much dried up and most farmers are supplementing the grass with other feed. Markets are unchanged, rather dull with some inquiry for potatoes. D. H. W.

Tioga Co., Northern Penn'a

Oct. 9: The weather for the past month has been wonderful for harvesting. We did not get a killing frost until September 23. Oats practically all threshed. Only about half a crop due to heavy rains. Corn has mostly been put in silos. Crop much below average. Buckwheat threshing under way. Some plowing being done. Quite a few fresh cows, T. B. test being carried on. Testing began October 1, and expected to complete the work in two weeks. Potatoes so far very satisfactory. Potatoes partly dug, not a very good crop. Meadows looking good. Apples are a small crop and of rather poor quality. Pears, plums, peaches and grapes have been plentiful. Eggs 40c, lambs \$11, calves \$10 @ 14, hogs \$8 @ 9. Mrs. Percy W. Lawton.



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If you want to save money when you build or remodel, if you want to cut lumber and building costs, if you want to get the most convenient and practical farm buildings, if you want the kind of buildings you have longed for (without mistakes) then send the coupon below. Don't build, remodel, equip or ventilate any Barn, Hog or Poultry House on your farm until you get our FREE Books.

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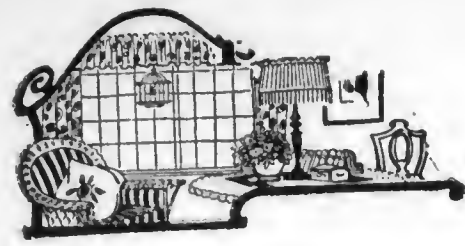
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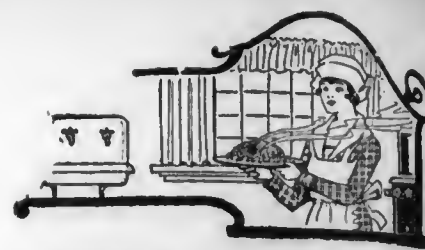
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28 per cent milk solids, 6.6 per cent lactacid, thick as cream with no foreign materials. Potatoes mostly dug, not a very good crop. Meadows looking good. Apples are a small crop and of rather poor quality. Pears, plums, peaches and grapes have been plentiful. Eggs 40c, lambs \$11, calves \$10 @ 14, hogs \$8 @ 9.

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The Farm Home



Contest Closes November First Final Rules

1. Your first picture is now on file in our office.
2. Send before November 1st, a clear picture of the same spot pictured in number 1—but now beautified.
3. Write a story using less than 300 words telling what you did and how you did it.
4. Be sure your name and address appear on story and picture.

Prizes
First—\$50.00 Second—\$25.00
Five Thirds—\$5.00 each.

What Did You Do?

I WISH you could peep into the office this afternoon, and get a glimpse of my tables and desks. They are covered with pictures. There are big ones and little ones—real photographs and snap-shots. But in one respect they are all alike. All of them show forgetfulness or neglect, carelessness or retarded plans.

Here are views of the most dilapidated old porches and many styles of fences—all tumbling down. Another group portrays littered corners of the yard and great piles of "what-not" rubbish. You also would see houses left unfinished and rough, barren surroundings. But beneath these many unsightly pictures are the readers who sent them to us have entered the HOME BEAUTIFYING CONTEST.

What a different display we can make when you send your second picture showing green grass and flowers. We are ready now for those second pictures.

Future Home-Makers

ONE of our colleges recently issued a questionnaire to its young women and out of one thousand who answered only eight admitted that they intended to keep house. What can we expect of these future housewives when they make no preparation for their place in a home? Is it any wonder the divorce courts are filled with the slightest idea of what is expected of a real housewife, nor possess any of the qualities essential to a successful home builder?

When are we going to wake up to the fact that we must educate our children to be home builders just the same as we educate them for a business career? How many times we hear people say, "There is no use to educate a girl, she will just turn around and get married." Just as if she did not need an education to be a housewife. Where, can you tell me, will she find any more need of an education than in a home? When the housewife is also a mother her education becomes more necessary, more invaluable in the training of her children.

If she uses correct language forms in their presence they will grow up to use them. It seems to me we are forgetting to put the proper value on the home life. The fireside is the bond that holds the nation together and yet in

most of our colleges we never hear it mentioned. Why isn't it just as proper to teach our boys and girls to be good home-makers as it is to train and teach them to do anything else well? Any girl should be ashamed to say she can't cook or sew when she contemplates getting married. She may think it sounds smart to make such a confession, but it sounds as if she had better

learn before she undertakes to be the head of a home. It will save her a great deal of worry and unhappiness.

L. A. C.
[Vassar College has a course which they call Euthenics, "the science of efficient living," for "those who have become or will become parents and home-makers." A great step forward for the nation.]

Replenish the Larder

New and Old Recipes

Good dill pickles.—Wash pickles and place in brine strong enough to float an egg. Let stand two weeks, then place in clear water for a day or two and then place in jars. Fill jars with hot vinegar and seal. For dill pickles fix the same, only place a little dill in jars when ready to seal. MRS. E. E. D.

Sliced cucumbers.—One quart sliced cucumbers, one red mango, one green mango, one large onion sliced, one cupful brown sugar, one teaspoonful turmeric, one teaspoonful dry mustard, one teaspoonful ground horseradish, one-half teaspoonful ginger, one tablespoonful mustard seed. Let cucumbers stand over night in salt water and drain. Take as much vinegar as you think necessary, put in mangoes, let come to boil, put in rest of ingredients, let boil four minutes and seal while hot. E. ROTH.

Sour pickles.—Wash cucumbers, scald with strong salt water, let stand over night, wipe dry, pack pickles in crock, cover with plain cold vinegar or vinegar and spices boiled together and let get real cold before pouring over cucumbers. Hot vinegar toughens cukes when not sealed. Cover pickles with two layers of clean grape leaves. Lay on small plate to hold leaves in place. Tie thick paper over crock and set in cold place. These pickles will keep any length of time if good cider vinegar is used. MRS. T.

Mrs. Y. W. B. asked for a recipe for canning tomatoes in glass jars. Cook, salt to taste and when you fill the can put

tablespoonful of butter on top. MISS W. H. N.
[Tomatoes in glass jars will spoil if left where a strong light reaches them.—Ed.]

Vegetable Soup.—(Canned.) Fourteen quarts sliced tomatoes (seeds out), 20 teaspoonfuls sugar, two cupfuls beans (cooked), one cupful rice (cooked), two cupfuls mangoes, eight bunches celery, one tablespoonful whole cloves, one tablespoonful bay leaves, one dozen onions. Salt to taste, cook until done. Seal. Add to beef or chicken broth when needed. Cabbage may be added if desired. Makes about 13 quarts. H. D.

Drop cookies.—In the issue of September 8th, Mrs. J. B. requested a recipe for rolled oats drop cookies, so I am sending mine, which has been used in our family for more than twenty years. Two cupfuls granulated sugar, one cupful shortening, three eggs, ten teaspoonfuls sweet milk, one teaspoonful soda, two cupfuls chopped raisins. (I prefer to cook for a short time the seedless raisins and then skim them out of the sandy water. Chopping is then unnecessary.) Two teaspoonfuls salt, two teaspoonfuls cinnamon, one teaspoonful nutmeg, two cupfuls rolled oats (dry) any kind, four and one-half cupfuls unsifted flour. Drop by spoonfuls and flatten out slightly with knife or spoon. This will make from 50 to 60 cookies of medium size. MRS. W. S. CLARK.

Sand in seedless raisins is no joke. Washed in hot water and dried in direct sunlight they become soft and plump, take vitamins from the sunshine and are a fine food for the school lunch.—Ed.]



Attractive homes are made more beautiful when fine stretches of lawn are not cut up with odd-shaped flower beds. Let the plantings be banked near the house and in borders.



No house plants are more easily grown than the Narcissus (paper white). All they ask is a low glass bowl of water where their bulbs may be neatly firmed with pebbles. Planted the first week in November they offer beauty and fragrance for your Christmas dinner table.

If I Had Ten Children

ONE woman says, "When I had only one baby, I thought I had so much to do; now with three, I wonder how I used to put in my time." And, carrying the idea further, if she had ten children, she would wonder how she had put in her time with only three. It is all in a relative attitude of how much is to be done. The more one really must do, the more carefully she is forced to plan; she learns to utilize every minute, and is consequently and justly pleased with her accomplishments.

The busier a woman is, the nearer she comes to the height of the possibility that is within her. Accomplishment is so largely planning as to almost dwarf the actual work. Say to yourself, "Now if I had ten children, I should have to plan to get my full housecleaning done by such and such a date. I would plan my meals a week ahead of time, would buy more in quantity, and keep more staples in the house for emergency. I could allow no waste spaces in my house, and would be forced to clear out all the useless things that are taking up space. I should insist on system and absolute order. I did not wish to submit to absolute chaos."

Now all these things are such as would improve any household. Every woman, giving careful thought to her daily routine, may be surprised to find many places where her work may be simplified, be made more efficient and effective. And one of the best ways of getting a good working plan is to ask oneself the question, "How would I do if I had ten times as much to do?" MRS. J. C.

Use fine steel wool and soap suds to remove obstinate spots on linoleum floors. Since this scouring will remove all the wax, apply new wax liberally to the cleaned spaces and polish thoroughly. Many housewives find that waterproof varnish on linoleum is easier to keep in shape, especially where they use the floor a great deal and wash it frequently. N. Y. C.

The Price of Health

By HEPSEY NEFF

PERHAPS this terrible machine age, which is worrying so many good people, is offering us more gain than loss if we are wise enough to see it. The automobile heads the list of destructive machines and its actual death rate may, even now, balance the record of the loss of life in the Great War. The two machines with which man is most familiar and yet is most ignorant are the motor car and the human body. And yet nothing is more certain than that the right care and use of each machine increases its value and prolongs its life. Some of the best firms give the buyers of their cars specific directions such as this: "After this car has been driven five hundred miles take it to one of our agents and have every bolt, nut and bar tested." A careful buyer is willing not only to follow this advice but also to obey other directions as to the details of caring for his car in order to prolong its life and increase its usefulness.

To Prolong Life

It may be only a coincidence that an organization under the name of The Life Extension Institute was formed soon after the motor car came into general use and that its aim is to prolong human life through much the same general methods; regular, annual medical examinations which note the precise condition of every part of the human machine and offer suggestions for corrective methods on much the same basis as cleaning spark plugs, more lubricating oils and a more even power supply. This shows a more fragment of the movement being pushed everywhere for a better informed citizenship, more instructive reading and a larger basis of clear thinking. Self-government must have back of it a citizenship of intelligent, independent thinkers; the lack of such citizens means failure. The Grange led in this movement in its earlier days and that organization is still one of the strongest forces for good farming, good thinking and good government to be found today.

An Attempt to Give Facts

Perhaps some of us have yet to learn that gains must come from subtractions as well as additions. The competition of keen minds in business long since established the rule that whatever activity connected with their plant was not paying good returns was even open to question, must go. This Life Extension Institute, which for the past ten years has been studying the conditions which make for health, has put out a small book now in its eighteenth edition, under the title, "How to Live", in which the best rules of health learned by our best students of health problems have been gathered. This book is in no sense an advertising scheme for anybody's wares or business. It is just an attempt to answer in plain language the plain questions about things that help and things that hinder health (for there are things that hinder and must be subtracted if we want the best results, precisely as the owners of prize-winning stock have learned), and to give dependable facts from present day knowledge.

Thrifty Stock

If this book could be read in all the homes of America this winter and not only read but studied and the facts given fairly tested, there would be no "Farm Relief" question. Farm folk that help and should be the finest types of men and women in the world. Readers of this page will attend one or more of the stock shows that are being multiplied all over the country. No one knows better than the owners of prize-winning stock that prizes are not won

by the use of more money but by the use of more brains. Prize-winning boys and girls are an increasing feature of the International Stock shows.

The question of the how and why of prize-winning calves and sheep is sure to be tied up with the question of the how and why of prize-winning boys and girls. Plainly, it can be done, given time enough, books enough and study enough and farm folks are not in the habit of saying "I can't."

Liver Good for Children

THE iron and vitamin content of liver makes it valuable for both adults and children, says the New York State College of Home Economics. The nursery school connected with the state college includes liver in the menu at least once a week. But children can not eat liver prepared in many of the ways popular among grown-ups. The following liver recipe is recommended:

Baked liver.—Remove membranes from the liver and pour boiling water over it. Put in a roaster in a low-temperature oven, dot the liver with butter and bake it from 30 to 40 minutes until liver is tender.

Fashions



The sensible patterns shown on this page are becoming more and more popular with Farmer folks, as the directions are easy to follow, orders are promptly filled and the price, 15 cents, postpaid, or two for 25 cents, is less than half of the usual store price. Order by number and state size in all cases. Address Pattern Department, Pennsylvania Farmer, Pittsburgh, Pa.

No. 3339.—Modern Youth. Designed in sizes 14, 16, 18, 20 years. Size 16 requires 2 1/2 yards of 40-inch material with 1/2 yard of 40-inch contrasting.

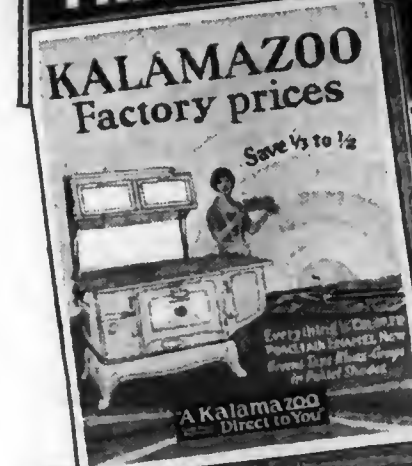
No. 109.—The Bolero Mode. Designed in sizes 6, 8, 10 and 12 years. Size 8 requires 1 1/2 yards of 40-inch material with 3/4 yard of 30-inch contrasting and 2 yards of binding. Embroidery pattern No. 1101 (blue) 15c extra.

No. 901.—Particularly Smart. Designed in sizes 36, 38, 40, 42, 44, 46, 48 and 50 inches bust measure. Size 36 requires 3 1/2 yards of 40-inch material with 1/2 yard of 30-inch contrasting.

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New Cabinet Heaters \$33.75 Up
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You'll be enthusiastic about the new Porcelain Enamel Ranges in brilliant new colors. Beautiful Coal and Wood Ranges, Combination Gas and Coal Ranges in gleaming black, blue, gray, ivory tan, blue-green and electric black. Trimmed in highly polished nickel. Gas stoves in white and colors, too. As easy to clean as a china dish. Enamel baked on in our own enameling plant—no chipping, no flaking. Kalamazoo Quality! Throughout! Wonderful bakings. All approved by Good Housekeeping Institute.

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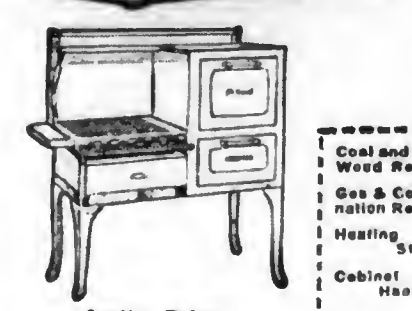
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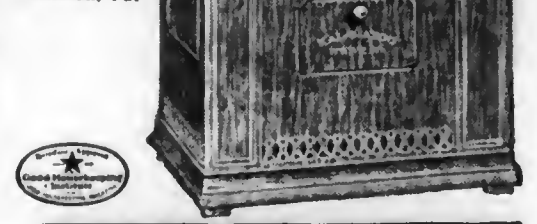
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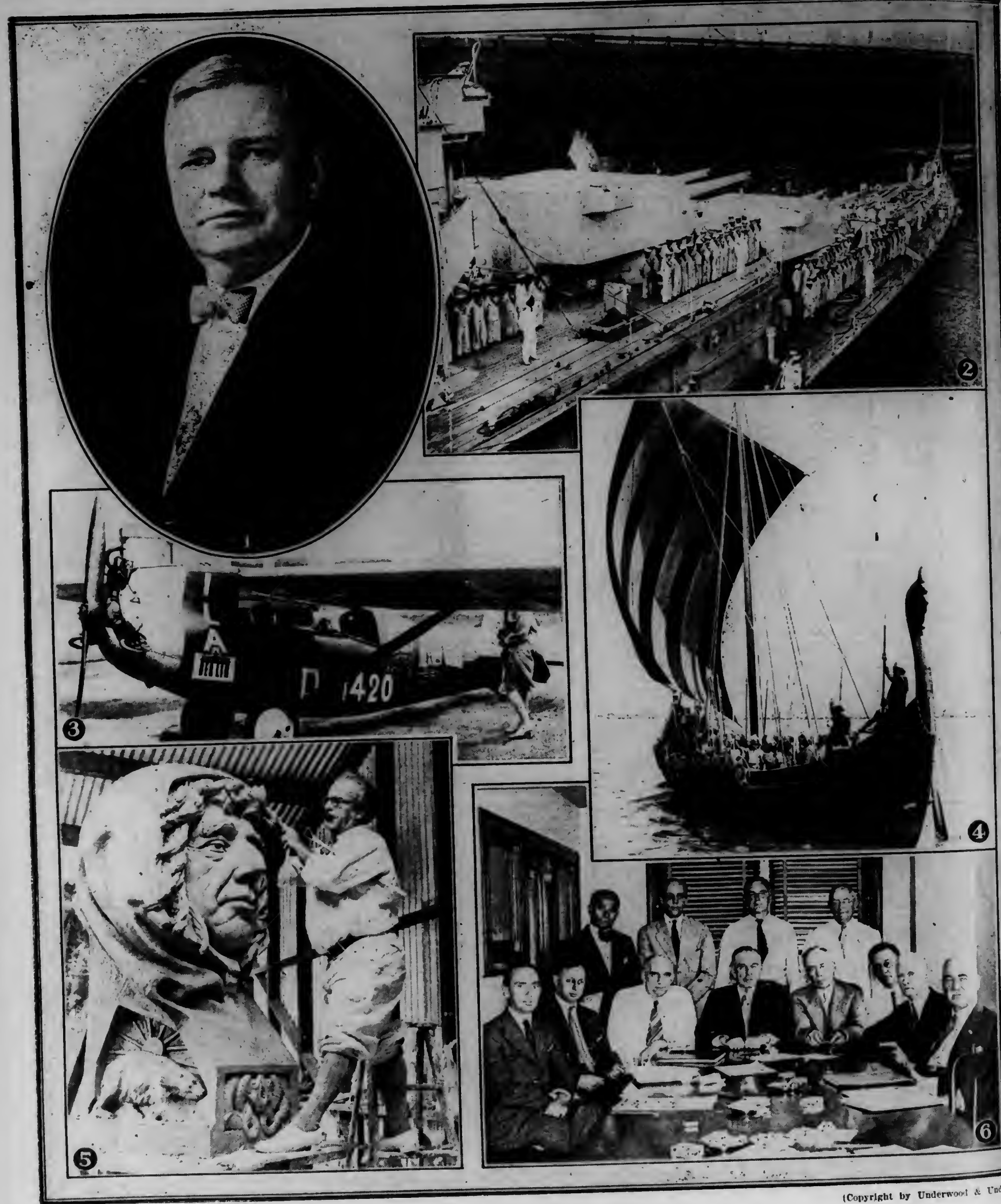
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☐ Gas Combination Ranges
☐ Heating Stoves
☐ Cabinet Heaters
☐ Pipe Furnaces
☐ Pipe Furnaces
☐ Oil Stoves

EVENTS CAUGHT BY THE CAMERA



1. The first portrait of Joshua Reuben Clark as the Undersecretary of State succeeding Robert E. Olds. Mr. Clark is from Salt Lake City, Utah, and returns to Washington after a lapse of 22 years, when he accepted a minor position there.
2. Looking down on the forward deck of the Australian cruiser "Australia," with her crew at attention as she ships into the New York pier after her arrival from Boston. The 10,000-ton warship saluted the United States with twenty-one guns as she steamed past Governors Island and was answered by the guns at Castle William.

3. Herr Martens in his tiny plane in which he is making a tour of Europe to promote the sport of airplane gliding. He is the German champion glider.
4. Propelled by a crew of twenty-two sturdy oarsmen, a picturesque Viking ship arrived at the Pacific Southwest Exposition on Norway Day. The captain, warriors and crew were all attired in the costumes worn by their ancient ancestors and their craft was a replica of the one in which Leif Ericson dared the unknown dangers of the deep to seek new worlds for conquest.

5. Mr. Finn Haakon Frolich, noted sculptor, putting the finishing touches on his six-foot bust of the renowned Norwegian explorer, Roald Amundsen, which was exhibited on Norway Day at the Pacific Southwest Exposition in Long Beach, Cal. The statue, showing the explorer wearing an Alaskan parka, such as he wore on his trips into the polar regions, has a polar bear and a symbolical design done in relief on the base.
6. The officers of the Republican Campaign Committee when they met for the first time in Washington.

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October 20, 1928

PENNSYLVANIA FARMER

(161) 27

Market Trends and Conditions

Farmer's Business Letter

Comment on Crop Report

THE grain market continued quiet this week without much change in prices, trade being affected very little by the crop report, which showed no radical change from the estimates a month earlier. A corn crop of 2,903,000,000 bushels is indicated, a decrease of 28,000,000 bushels from the estimate a month ago. About 74 per cent of this year's corn crop is concentrated in the twelve northcentral states as compared with 69 per cent last year. While a few states have a very large yield, the crop as a whole is moderate having been exceeded seven times in the past thirteen years, though quality generally is good. In spite of relatively light supplies of livestock to consume the crop, it is not thought that there will be a large surplus, though there is a probability of heavy marketing when the shellers get under way, and thus prices may for a time be depressed to a rather low point. Feeders everywhere, who need to buy corn, will most likely be able to secure it some time during the next four months at a very attractive price.

All wheat is estimated at 903,805,000 bushels, against a yield of 872,595,000 bushels last year. Visible supply of wheat is very large, around 35,000,000 bushels above a year ago. It is the largest on record for this season of the year, the result of a large crop, heavy marketing and slow foreign demand, which sizes up the situation in which the trade finds itself.

Barley is a large crop, in this country and also in Europe. It is a feeding crop, but this year hogs have refused to eat it in many instances, due, it is believed, to a tiny reddish bacterial growth found on the kernels, and Germany has put the ban against barley from some sections of this country for this reason.

Prospects for buckwheat have been reduced in both New York and Pennsylvania as a result of dry weather and frost. The crop is now estimated at 14,804,000 bushels. This is 700,000 bushels below the forecast of last month, more than 1,000,000 bushels below production last year, and yet more than 1,000,000 bushels above the average production during the previous five years.

Following are the estimates of yields of principal crops, according to the government report:

Production of Important Crops—Total Production in Millions—Harvested—Indicated			
Crop	5-yr. av.	1927	Oct. 1, 1928
Corn, bu.	2,776	2,774	2,903
Winter wheat, bu.	556	553	579
Durum wheat, 4 states, bu.	62	76	85
Other sp. wheat, U. S., bu.	190	243	240
All wheat, bu.	807	873	904
Oats, bu.	1,352	1,184	1,453
Barley, bu.	192	264	351
Rye, bu.	63.8	58.8	43.3
Buckwheat, bu.	13.7	16.0	14.8
Flaxseed, bu.	20.1	20.6	22.5
Rice, 5 states, bu.	36.3	40.1	38.8
Grain sorghums, bu.	115	139	125
Sugar beets, tons	7.36	7.75	6.76
Potatoes, white, bu.	394	407	464
Rd. potatoes, bu.	81.1	93.9	78.5
Tobacco, lbs.	1,338	1,211	1,353
Broomcorn, tons	55.9	39.6	44.0
Hops, lbs.	27.1	29.8	31.8
Beans, dry ed., bu.	16.3	16.9	15.9
Peanuts, lbs.	671	807	821
Hay, all tame	91.0	106.5	92.7

Big Hog Supply

Hogs came with a rush again this week, and the market at the close was 45 to 75 cents lower than the close of last week. Receipts at eleven markets totaled 430,000 head, only about 20,000 under week before last when the big price break came. There are very large runs for the time of year, and quite unexpected from reports of supply of hogs in the country. The average weight this week at 240 pounds is about normal, comparing with a five-year average for the week of 243 pounds, so it is not a case of sending immature stuff to market. It is probable that a good many of the hogs now coming are a year old, that is pigs of last fall's crop that did not

find their way to market last summer due to scarcity and high price of feed. They were grassed along during the summer, and do not have the weight their age would indicate.

Shipments were again light this week, only 10 per cent of receipts at Chicago, giving packers practically full sway in the market.

It is worthy of note that the average price of hogs is now about \$1.40 below this time a year ago, and every producer knows what hogs brought last winter. There is nothing to indicate a material advance in hog prices, and if receipts keep up they may easily go lower.

Cattle Trade Uneven

It has been a very uneven week in the cattle market, advances the first half of the week being lost later, except on the top grades which closed a little higher. Top cattle sold at \$18.35 this week against \$18 last week, and yearlings at \$18.10 against \$17.50. Plain cattle, especially of some weight, were in poor demand all week, and prices were quoted 25 to 75 cents lower. Calves advanced 50 to 75 cents, with a top of \$17.

The run of western cattle begins to show signs of dwindling, and in the course of the next two or three weeks it is expected that the bulk of them will be in, after which it will be slim picking for feeders.

The stocker and feeder market showed a gain of 25 to 50 cents this week, above the low time last week, on the strength of very active demand the first half of the week. But with the break in the fat cattle market on Thursday this demand dwindled, and it was slow trade the remainder of the week. The bulk of the business in stockers and feeders this week has been at a range of \$10.50 to \$11 for fair grades, up to \$12 and \$12.50 for extra good quality. Some very choice yearlings sold at \$13 and above, with off-color native grassers down to \$9.

Wholesale quotations on fresh beef range from 14 to 25.5 cents this week, against 17 to 28 cents a month ago.

The Future of Beef

A government review of the beef cattle business, looking to the future, says:

"Undoubtedly there will be the usual seasonal price fluctuations in response to seasonal changes in supply, and there probably will be brief periods when prices of fat cattle will be depressed because of temporarily increased marketings of such cattle, but a serious decline in the general cattle price level is not likely to occur until the per capita supply of beef is increased or demand is greatly reduced. "A material reduction in demand is not anticipated unless the country suffers a severe business depression like that of 1921. Materially increased beef production cannot take place until cattle producers retain more breeding stock on their farms and ranches. As yet there is little evidence that this is being done, because most producers appear to be taking advantage of the present price level and are selling their cattle for slaughter and feeding rather than holding them for building up their herds. When they have become accustomed to the existing price level and have more faith in its permanency, there will be a greater tendency to expand operations."

Lambs Gain a Little

Fat lambs were 25 to 50 cents higher this week, natives showing the most gain. Tops sold at \$13.60, with the average \$12.95, against \$12.85 last week, and \$13.70, the average for the same week of the past five years.

Receipts of lambs showed a material reduction from last week, with westerns still coming strong. Montana contributing 35,000 head this week and Idaho 19,000 head.

Wholesale lamb prices now show a range of 17 to 24 cents, against 22 to 29 cents a month ago.

Feeder lambs were about steady on the best this week, with others 25 to 50 cents higher. Bulk of fair to good grades of 55 to 65 pounds are selling at \$12.50 to \$13.10, with best selections up to \$13.25,

and fancy lots even higher. Country demand continues good. Only inferior thin light weights and common feeders of extreme weights are selling downward from \$11.50, a scattering of small lots of throw-outs occasionally as low as \$10 to \$10.50.

Trade in breeding ewes is very light, few being offered. Kentucky gets an occasional load, but that is about all.

Stocker and Feeder Movement

During the three months ending September 30 the nine leading markets sent 844,824 stocker and feeder cattle and calves to the country, this figure comparing with 627,021 during the same three months last year. The increase figures 34.7 per cent. However, the stocker and feeder movement last year was the smallest in over 30 years.

Of sheep and lambs these same markets sent 1,270,306 head to the country during July, August and September this year, against 1,164,752 during the same three months last year, a gain of 8.8 per cent.

A government statement issued this week says: "Available information as to cattle supplies for the last three months of this year indicates that the movement of unfinished cattle into the Corn Belt will not continue to show the big increase over last year that has taken place from July to September. It hardly seems likely that the shipments during the three months, October to December, this year will exceed, if they equal, the movement of last year. Because of the uncertain corn situation last year purchases or unfinished cattle were proportionately very

small from July to September and large from October to December."

Horse Trade

The horse market showed more activity this week than in some time, but with only 229 head on sale prices were no higher. Next week a special sale of 120 head of Dakota horses will be held here. It will be the first sale of this kind in some time. Top sale this week was at \$250, with \$100 to \$150 catching most of the offerings of a pretty good kind.

Dairy Production

The dairy business has been relatively good for some years, yet serious overproduction has not developed, and prices have continued quite satisfactory to the producer. Commenting on this an observer here says: "Some things have evidently happened to hold dairy production in check. One is a feeling that overproduction is costly, so some dairymen have deliberately curtailed production, keeping fewer rather than more cows. Another is the elimination of profitless cows. The competition of three to five thousand-pound cows is being reduced. The minimum production satisfactory to many dairymen and necessary for profit is set at about seven thousand pounds of milk a year. A cow that doesn't produce that much milk is no longer regarded as worth keeping. A third factor, and perhaps the most important, is scarcity, unreliability and high cost of labor. This has caused many dairymen to cut down the number of cows kept."

WATSON.

Chicago, October 13, 1928.

Eastern Market Review

POTATO prices held steady in the leading eastern markets during the week but the demand was slow. Shipments were heavier from Maine, North Dakota and Wisconsin, and New Jersey still continued to show the big increase.

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able. The total movement to foreign markets has been about twice what it was a year ago. Germany, Holland, Denmark and Great Britain should offer good outlets as European production is generally lighter than last season.

The high quality of the crop in Virginia and Maryland is causing shipments from these states to exceed earlier expectations. The truck movement of apples to the Philadelphia market increased and rail receipts were liberal. The demand was generally slow with prices holding steady. Medium-sized stock has moved fairly well to the poultry trade at low prices and this has had a depressing effect on the demand for better fruit. The only other class of fruit that has moved well has been fancy stock in eating condition. Smokehouse, Stayman and Maiden Blush of fair to good quality have brought \$1.125 per bushel. Grimes have sold mostly at 50¢/75¢ per % basket, with well colored fruit bringing 85¢/81¢.

The grape market weakened somewhat during the week on account of more liberal receipts from New York state. The increased supply of California juice grapes also affected the market. The demand has been good for the eastern varieties at about 45¢ to 50¢ per 12 quart basket. The entire country were 8,541,000 cases on October 1 as compared with 7,960,000 the same month last year. This is a so-called surplus of 581,000 cases. This situation affects producers of nearby eggs to some degree as dealers will take every opportunity to work out their storage stock whenever they see a small profit. During the heavy storing months of March, April, May and June cold storage figures showed a shortage and prices were relatively high. For instance, on May 1 there was a shortage of 986,000 cases compared with the same month in 1927. The high prices at that time stimulated production and decreased consumption.

A strike of expressmen in New York shut off receipts of express poultry during the latter part of the week and prices were higher. The dressed poultry market was generally unsatisfactory, although fryers were in demand.

Apple Market Improving

The prospects for marketing the apple crop are improving. The total crop in the United States is now estimated at 177,500,000 bushels, or 1,000,000 bushels below the expectations of a month ago, and 54,000,000 above the short crop of 1927. Market prospects for export continue favor-

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Livestock Markets

PITTSBURGH

Cattle

Monday's supply was around 60 carloads. Sellers having found it necessary to accept a lower level of prices, and buyers needing some cattle. Prices are hard to a little more active. Prices are hard to a little more active. Prices are hard to a little more active.

Many growers are considering switching from the Big Stem Jersey variety to the Little Stem Jersey and the Up-River on account of quality. The Big Stem has been a favorite with the growers on account of its strength of vine and resistance to cold but it has a tendency to become large and rough. The Little Stem and Up-River are not so hardy but are more popular with the buyers.

Glimpses of the Farm Markets

Many kinds of farm produce are in heavy supply in mid-October. Prices hold with some difficulty in grain, wool, butter, eggs, fruits and vegetables. Livestock markets have tended lower, also potatoes. October crop reports show little change in a general way and are still above the ten-year average.

Potatoes.—Shipments of potatoes still average about 1,000 cars daily and prices again tended downward in midwestern markets, losing five and ten cents per 100 pounds the second week of the month, but eastern markets held fairly steady at general jobbing range of \$1 to \$1.25 for eastern Round White varieties. Sweet potatoes are fully 15 million bushels less than last season, according to the October report. Some eastern markets are 25 cents lower this week.

Onions.—The western New York onion market was slow and dull, but nearly steady, toward the middle of October, with price near \$3.50 per 100 pounds. More buying in western Colorado pushed up the price there to \$2.50 to \$2.00.

Cabbage.—The city jobbing range on all cabbage was about \$5 lower than early in the month at \$25 to \$45 per ton, depending on variety and source. Shipments have been increasing, especially from the upper Lakes region.

Peaches.—The western New York shipping points market was 10 cents higher on Elberta peaches at \$1.25 to \$1.35 per bushel basket, while the city range was steady at \$1.75 to \$2.

Apples.—Shipments of apples have several times reached 1,500 cars or more daily. Prices are holding fairly well in producing sections at \$3.25 to \$4.75 per barrel or \$1 to \$2 per bushel, but some city markets are oversupplied and prices sagging down a little.

Grapes.—Michigan producing sections quoted 12-qt. baskets of grapes five cents lower at 32 to 33 cents, while terminal markets reported this stock at 30 to 60 cents. New York grapes in 12-qt. baskets were jobbing generally steady at 50 to 60 cents.

Hay.—Eastern timothy hay markets showed considerable strength as receipts of good quality hay were hardly sufficient for current needs.

Butter.—There was little or no change in the butter situation from the conditions which have prevailed during the past several weeks. Trading in cold storage butter has been rather light. While the outlook for full production is uncertain and opinions vary, the preponderance of evidence appears in favor of a heavier make of butter than during the fall of 1927.

Cheese.—The cheese markets continue unsettled. Trade has been moderate. Production continues to exceed last year.

Eggs.—Prices of eggs are now fairly steady, as the unfavorable factors are apparently well discounted, but values are consistently below those of a year ago.

Poultry.—Demand for dressed poultry is reported fairly good for this season and prices are holding their own generally.

Please publish in next week's paper who has mule-hoofed hogs. Those who have these hogs for sale should advertise them. READER.

PITTSBURGH

Cattle

2 1130	8.00	2 860	8.00	1 1100	7.50
1 810	7.50	3 967	7.00	3 910	6.50
21 824	6.00	5 820	6.00	3 940	5.75
4 945	5.50	5 800	5.50	3 643	5.50
14 837	5.35			5 892	5.25

Bulls

4 1305	10.50	1 1040	10.50	1 1670	10.00
1 1407	10.00	2 1070	10.00	1 1020	9.50
1 1580	9.50	1 1340	9.50	1 1080	9.50
1 1250	9.00	1 770	9.00	1 1130	8.50
2 1060	8.50	1 1020	8.50	1 700	8.50
1 1210	8.00	1 800	8.00	1 840	7.50

Hogs

Last week's market ruled lower after Monday, getting down to a \$10.50 basis for good band weights. Monday's receipts were about 35 double-deck carloads. Trade was fairly active at about last week's closing prices or a little less. A few nice heavy-weight hogs, including those of the Perry county, Ohio, pig club, brought \$10.75, bulk of these weights \$10.65. Few heavy hogs are coming and quotations are estimates. Heavy mixed sold at \$10.60 to \$10.65. Light Yorkers and the best of the pigs went at \$10, not many pigs appearing. Good sows brought \$9.35 and stage \$9.75. Heavy wts., 250 lbs. or over, \$10.25 to \$10.50. Heavy mixed, 180-200 lbs., 10.65 to 10.75. Medium wts., 165-180 lbs., 10.65 to 10.75. Heavy Yorkers, 125-150 lbs., 9.75 to 10.00. Pigs, 100-110 lbs., 9.50 to 10.00. Roughs, 8.50 to 9.35. Stags, 6.00 to 7.00.

Sheep

Monday's receipts were moderate, 12 carloads, including about three carloads of sheep. Other markets were well supplied. Sheep were steady at \$8.35 for plied, worth \$8.75 per cwt. for slaughter unless extremely heavy. Breeding ewes are wanted but none offered. Lambs were easier at \$13.85 for tops, with culls out at \$10 to \$11 largely, common culls on down to \$7.00. Nothing has been done in feeder lambs at this market, all going to killers.

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Calves

Around 700 calves were on sale on Monday. Best veal calves brought \$18 per cwt., second cut \$12 to \$15 and inferior \$7 to \$10.

CHICAGO

Cattle

Chicago, Oct. 15.—Cattle receipts amounted to 27,000 head. Market a quarter lower. Common to fair yearlings... \$10.50 to \$12.25. Fair to good yearlings... \$12.25 to \$14.00. Good to choice yearlings... \$14.00 to \$15.75. Choice to prime yearlings... \$15.75 to \$17.85. Good to prime yearlings... \$17.85 to \$19.00. Common to fair yearlings... \$19.00 to \$20.00. Fair to good yearlings... \$20.00 to \$21.00. Good to choice yearlings... \$21.00 to \$22.00. Choice to prime yearlings... \$22.00 to \$23.00. Good to prime yearlings... \$23.00 to \$24.00. Common to fair yearlings... \$24.00 to \$25.00. Fair to good yearlings... \$25.00 to \$26.00. Good to choice yearlings... \$26.00 to \$27.00. Choice to prime yearlings... \$27.00 to \$28.00. Good to prime yearlings... \$28.00 to \$29.00. Common to fair yearlings... \$29.00 to \$30.00. Fair to good yearlings... \$30.00 to \$31.00. Good to choice yearlings... \$31.00 to \$32.00. Choice to prime yearlings... \$32.00 to \$33.00. 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Good to choice year



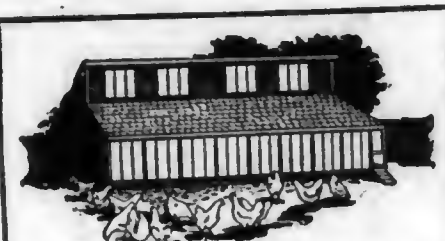
Invest \$5.00 and get EGGS all winter

EASY WITH GLASS CLOTH



Glass Cloth is a super-strong fabric, treated by our patented process to make it transparent, waterproof and weatherproof. It comes in rolls 36 in. wide. You simply cut it to size and tack it over the opening. Admits light/freshly. Costs but 1-6 as much as window glass.

It is easy to get the winter eggs. Thousands of folks are doing it now by letting the sun's ultra-violet rays into the hen house through GLASS CLOTH windows. Plain glass shuts out these rays, but GLASS CLOTH passes them freely. You never saw anything make such a difference in hens. Under GLASS CLOTH they pep up, scratch and exercise. Egg paralysis vanishes. Their egg glands become active and the way they lay is amazing. After putting GLASS CLOTH in his windows E. V. Agler got 10,690 eggs from 242 hens in 3 winter months. Think of the profit at winter prices. Aaron Bass sold \$931 worth of eggs from October to January. Mrs. A. W. Potts put up a \$5.00 roll and got three times more eggs than ever before in winter. Not only is GLASS CLOTH a great profit maker, but it is the cheapest good window material you can buy. R. G. Hughes saved \$60 over sash and glass building a hen house.



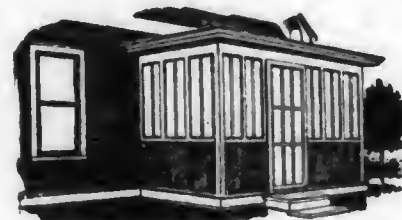
The more light you let into your hen house through GLASS CLOTH the better results you get. This shows an ideal type of house. \$5.00 worth of GLASS CLOTH covers 135 sq. ft. of windows. The extra eggs you can get will repay you many times over. So successful is this plan that almost a million poultry raisers now use GLASS CLOTH. You might as well get some of these extra profits.



Amazing Strength Extra Quality

Please do not confuse genuine GLASS CLOTH with the cheap, flimsy imitations now being offered by others. Their claims are big—but we suggest that you test a sample of real GLASS CLOTH with their samples. A child can see the difference. Genuine GLASS CLOTH is very, very strong. No other begins to equal it. See the photo above. Nine people, weight 1062 lbs., standing on a small frame of GLASS CLOTH. Such strength means extra life and extra value. In GLASS CLOTH and in our light weight grade called LIMBER GLASS you get more for your money than any other offers. When you buy from us you buy from the patent holders and originators. For 12 years we have made high grade materials only. Today our prices are lowest and product best to be had.

Make Your Home Cozy for Winter



This drawing is from a photograph. It shows how one customer tacked GLASS CLOTH over his summer screens to make snug storm doors and windows. The fact saved will pay for the GLASS CLOTH and the comfort is "thrown in to boot." We get hundreds of letters telling how cozy it makes a home.

At very small cost you can make your home winter-proof this winter. Tack GLASS CLOTH over your screen doors and windows. You will be amazed at how warm it keeps the house, even in coldest weather. No chilly draughts across the floor. Saves fuel and doctor bills. Also ideal for enclosing porches and sleeping porches.

Cheap to Buy Easy to Put Up

Big economy is one of the chief features of GLASS CLOTH. It makes very satisfactory windows and yet costs only 1-6 as much as plain window glass. To put it up you do not need milled sash as with glass. Just cut it to the size with knife or shears and tack opening, or onto home made frame. This great saving in cost and makes it far more practical for

TURNER BROS. Dept. 631,

Write Nearest
Office

**WELLINGTON, OHIO
BLADEN, NEBR.**

AND LIMBER GLASS

We announce a new, light grade material called "LIMBER GLASS." It is the lowest priced and except for GLASS CLOTH the strongest material of its kind on the market.

28¢ yard

We still claim GLASS CLOTH to be the best value for the money because of its extra strength and quality. It is the best that can be made. The price is extremely low considering the quality that goes into it. If you want samples, write us.

NEW LOW PRICES

\$5.00 buys a big roll of GLASS CLOTH 45 ft. long and 36 in. wide. (Will cover a window or scratch shed 9x15 ft.) \$4.00 buys the same amount of LIMBER GLASS. If, after ten days' use, you do not find them better than glass or any substitute, return them and we will refund your money. Free booklet, "Getting Winter Eggs" with each order. Samples and catalog on request. Thousands of dealers now sell GLASS CLOTH, but if there is not a dealer in your town, send us your order on the coupon below and it will be shipped promptly, postpaid.

Use This COUPON

TURNER BROS., Dept. 631
Bladen, Nebr., Wellington, Ohio

I enclose \$..... for which send me postpaid 1 roll of () GLASS CLOTH () LIMBER GLASS at the offer price.

Name.....

Address.....

Town..... State.....

PENNSYLVANIA FARMER

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER

October 27, 1928

Established 1877



Fall Brings Its Thrill to the Old Time Duck Hunter

Pittsburgh

Harrisburg

Philadelphia

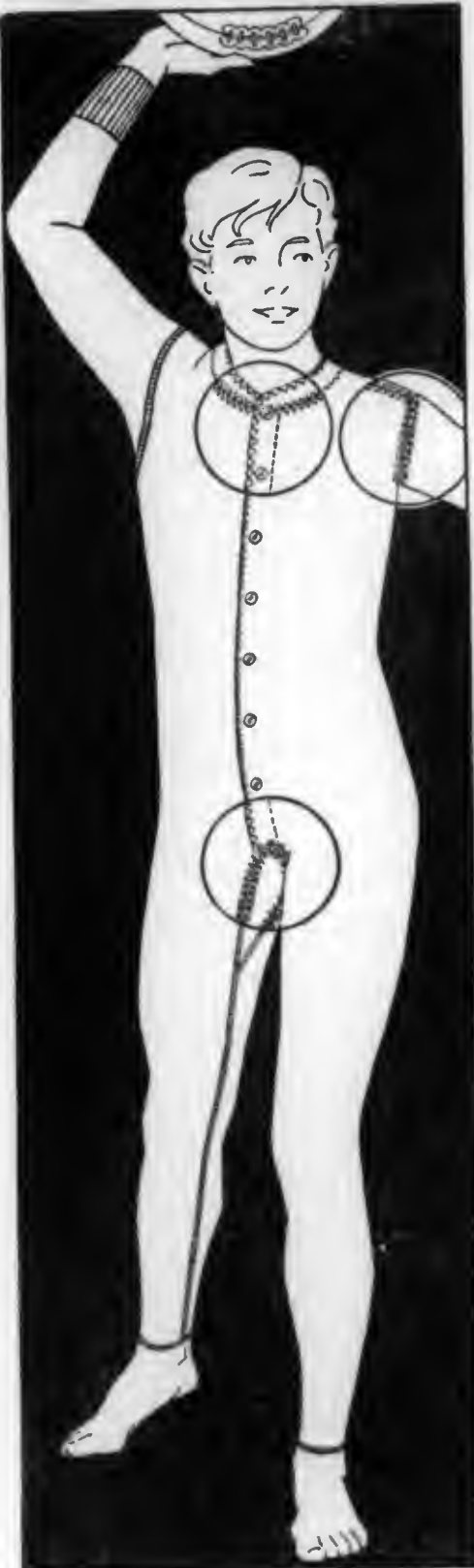
MUTILATED TEXT

Mothers—
you can't keep
winter
from coming
but
you can buy
HANES
protection



This is the HANES Merri-child Waist Suit. Made in 2 to 12 year sizes. \$1.

- 1 HANES Collarettes cut to size. Won't roll or gap open. Protect from cold. Over-shirt lies smooth.
- 2 HANES Elastic Shoulders give with every movement. Made with service-doubling lap seam.
- 3 HANES Closed Crotch stays closed. Double gusset in thigh. Crotch can't bind, for HANES is fitted trunk as well as chest.



UNDERWEAR for your children that's as good as dad's. As snug and comfortable. HANES makes it! Makes it with all the skill that goes into the famous HANES Underwear for men—and at remarkably low prices. Here's value that appeals to every family's chief guardian of the budget.

Warm and comfortable union suits for boys and children of all ages. Built to stand a boy's activities—to stand hard wear and hard washing. Every size especially knit to size from fine soft yarn. Elastic knit, to

prevent binding and wrinkling. Guaranteed—every thread, stitch and button, or your money back. How's that for protection?

Look again at the three features in HANES union suits for boys. Right where they're needed. Then consider the price. Only \$1 for heavy or extra-heavy. \$1 for the Merri-child Waist Suit, also illustrated. If your regular store can't supply you with HANES Underwear (be sure to look for trademark) write to P. H. HANES KNITTING COMPANY, Winston-Salem, N. C.



Farm Facts and Fancies

By ALVA AGEE

SAN DIEGO is a good place for any one when waiting for the coming of a bit more of health, but when it arrived, or a substitute about as good, we wanted a week's trip outside of county lines and yet within the range of ocean air. The interior country gets too hot when the desert air has its way. Our trip necessarily would be up the coast, because on the south we are near the Mexican border, and we do not find Tia Juana and the territory around it restful after sundown. We would head northward for Los Angeles.

Now, it is a curious thing that most people want strangers to think that they are prosperous. I see no particular reason for that, but running true to form we took the car to the new revolving-platform auto-wash, and invested five dollars in a wash and polish. So far as this was done to impress strangers it was a weakness, but neighbors do have a right to a certain degree of neatness from associates. Always there is interest in getting ready to leave home even when one knows that he will be much more glad to get back than he was to go. The flowers and lawn were given a thorough soaking—a necessity in this dry country—supplies for the home were stopped, and the last duty concerned a bit of research. I have heard the claim that "care killed a cat", and we had a visiting cat that developed a violent attachment to us, and against our will. It was a chance to experiment, and so we left Care and the cat together behind us to see what would happen, drove down off our plateau to sea level, stepped on the gas, and the world looked even better than usual.

The Pacific Coast

I am told that there are points along this coast as beautiful as any in southern France or Italy. Be that as it may, there is all the beauty that I am able to appreciate. La Jolla, which is pronounced more nearly correctly as one keeps uninfluenced by the spelling, is fourteen miles north of San Diego, and is the home of many artists, writers and others who were attracted by the beauty of the sea. The prevailing architecture is Spanish. The point of land jutting into the water, and bending round the bay, offers a view of water whose varying tints are a ceaseless delight.

Next we climbed over the little mountain to Del Mar—all this coast is a playground for eastern people—and passed through shore towns and an important avocado district. The town of San Clemente, about sixty-five miles up the coast, illustrates western development methods. Realtors who do things want new and cheap land that they can acquire in a body before spending hundreds of thousands—sometimes millions—in development and advertising.

Near the point where the inland route turns through the mountains to pass the old Spanish Mission town of San Juan Capistrano this new town of San Clemente started its existence two years ago. The building restrictions suited the wealthy who wanted homes by the sea, and a skillful promoter who risked a fortune now has two, and the wealthy men who joined him have the town they wanted.

In Orange County

We took the coast route through Orange county, going through the resorts that give relief from heat to the growers of tropical fruits ten to fifty miles inland, and to the inland towns and cities. Huntington Beach lost its old attraction and is a forest of derricks. Oil in big paying quantities

was discovered a few years ago, and nine hundred derricks are standing in the town, averaging one for every three lots, but in places they stand side by side. The average cost per well is said to have been eighty thousand dollars. The figures look pretty big, but there was the oil, the individual lot owners wanting their share of the pool, men willing to take the risk, and this forest of derricks continues to represent a profitable investment.

Long Beach

We were headed for Long Beach for lunch, which we are old-fashioned enough to call dinner, and for a two hours' rest at the Roque courts where games by some of the best players in this country can be watched. Will Rogers says that Iowa is the incubator of California, and in exceptional degree that would be said of Long Beach where thousands of retired farmers are enjoying the form of "relief" that sea air brings. The shore line bends in a quarter circle from Long Beach, south of Los Angeles, to Santa Monica on the west, and along this line are the beach resorts of Los Angeles.

It was old territory for us, as we stopped in Santa Monica a year on our way to San Diego, and everywhere development goes on at a good pace. And why not? Eastern money does it, the money of people who need a favoring climate, or physical ease in old age, and of the rich and very rich who by the tens of thousands have made the Coast their home. And yet that is only partly true because within the last ten or twenty years manufacturing has come in, largely at Los Angeles, and the film business has brought an unbelievably large amount of outside money to the Coast. Horticulture has brought large sums, but not the net profits that account for fine homes and great estates.

The Other Five Days

It was good to have a night's rest at Santa Monica, and a run into Los Angeles over the new Beverly boulevard along the foothills of the mountain. Four days in the city with some sightseeing, some visiting, and some running where traffic congestion is bad, were strenuous enough, and the morning we rose early, slipped down through the city before many were up, and soon were way below the range of exacting traffic officials.

The return trip was through the center of the Orange county orcharding district, the roads were fine, the air not too warm, and life was good. Some of our young readers may not think the time we made is worthy of mention, but for white-haired people I thought we did well. The car was still running in that extra polishing, and the engine and brakes always are kept in as perfect condition as possible, because we cannot afford to have them otherwise. The one hundred and thirty-one miles were made in four hours and fifteen minutes running. As there was slowing down for many towns and entering San Diego, when we had a straight road all to ourselves there was constant need of diverting the attention of the other member of the party to the beauty of the orchards so that the speedometer would not be watched. The cat met us at the door, looking pretty well satisfied about something.

What is predicted to be the largest and the most important gathering of dairymen in West Virginia will be at Martinsburg on November 8 and 9 when the West Virginia Dairymen's Association holds its eighth annual meeting at that place. With 30 counties expected to send delegations, it is believed that the attendance will reach 300.



For homes with electricity, the Maytag is available with electric motor.

The MAYTAG Way Saves nearly a day

FREE Farm Washings

The Maytag must make good every claim before you decide to keep it. Any Maytag dealer will bring one for a free trial washing in your own home without cost or obligation. Write or telephone the nearest Maytag dealer today. Test the Maytag, compare it, wash with it. Count its many advantages. See how smoothly and quietly it runs. All gears are precision-cut steel and enclosed.

Maytag Radio Programs

KDKA, Pittsburgh, Tues., Wed., 10:00 P. M. WCCO, Minneapolis, Fri., 8:30 P. M. KEX, Portland, Ore., Tues., 8:30 P. M. WBAP, Fort Worth, Mon., 8:30 P. M. WBZA, Boston, Springfield, Fri., 7:30 P. M. CFCB, Toronto, Can., Tues., 7:30 P. M. WHIT, Chicago, Tues., Wed., Thurs., Fri., Sat., 9:00 P. M. KNX, Los Angeles, Wed., 7:00 P. M. KFRC, San Francisco, Tues., 7:00 P. M. KMOX, St. Louis, Tues., Thurs., Sat., 10:35 A. M. KSL, Salt Lake, Mon., 7:30 P. M. KLL, Denver, Thurs., 9:00 P. M.

Hours designated are Standard Time at the stations named.

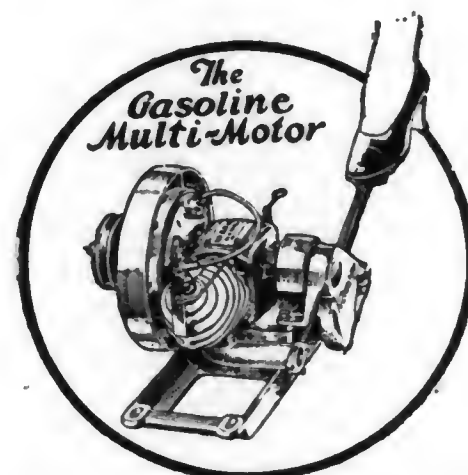
THE MAYTAG COMPANY, Newton, Iowa Founded 1893

Eastern Branch, 851 N. Broad St., Philadelphia, Pa.

The Maytag Company, Ltd., Winnipeg, Canada
Hot Point Electric Appliance Co., Ltd., London, England
Maytag Company of Australia—Sydney—Melbourne
John Chambers & Son, Ltd., Wellington—Auckland, N. Z.



Deferred Payments
You'll Never
Miss



Powered with Gasoline or Electricity

The Maytag Gasoline Multi-Motor is the only gasoline engine built especially for a washer by a washer company, and the demand has made The Maytag Company the world's largest manufacturers of gasoline engines of this size and type.

The first Maytag Gasoline Multi-Motor was built fifteen years ago. It is a modern, high-grade engine in every respect. It gives the same smooth, steady flow of power as an electric motor. A woman can start it by a step on the pedal. There are no belts to line up—it is in-built and is interchangeable with the electric motor by removing only four bolts.

The Maytag Gasoline Multi-Motor has Bosch high-tension magneto and speed governor. High-grade bronze bearings are used throughout. The carburetor has but one simple adjustment and it is flood-proof.

F-11-28

If It Doesn't
Sell Itself,
Don't Keep It

List of Associations in Pennsylvania and West Virginia follows:

List of Associations in Pennsylvania and West Virginia follows:

We are growing three varieties of celery this year—Easy Blanching, Newark Market and Emperor. The Emperor proved last year to be such a tender, buttery celery that we want more of it. The Newark Market is new to us but it is highly recommended. It has one characteristic we do not like and that is it is inclined to spread out flat before it is handled.

If I have one desire that is stronger than others it is to call farm people back to a realization of the possibilities of a more simple life. The numbered things which have reduced the toil and hardships of former years on the farm should give us time and opportunity to see and enjoy the beauty and poetry of the country. Some times I think our grandfathers and grandmothers found greater pleasure in living than we do, simply because they took time to enjoy the things they saw and did. After all, happiness in life depends on what is inside us, not on the things outside.

GRAIN-FED eggs and grassy omelets may some day grace our breakfast tables. The contention of a produce dealer is capitalized by some one who aims to further glorify the great American hen. For in pointing out the impossibility of grading eggs

A HIGH commercial authority scans the fluctuations in the price indexes of various commodities and concludes that stabilization through financial agencies, particularly the Federal Reserve system, is a myth. Of course it is, and so is stabilization by any other agency, commercial or official. Prices have always fluctuated in an open market and always will, for they do and should respond to all influences which affect the commodities and the opinions of those who trade in them. There is no way to escape fluctuations in prices and retain the blessings of an open market. Nobody but a few theorists, who think their ideas about correct price levels are superior to the composite wisdom of all concerned therein, wants to sacrifice open markets for the myth of stabilization. All this does not mean that we should neglect legitimate opportunities to reduce instability whenever such opportunities exist as they may in commodities which can be graded, stored and traded in for future delivery. But we might as well conclude now as after cost-

Whatever may be the truth as to economic or other reasons for the consolidations now existing and in prospect, Judge Miller's conclusions as to the proper course of milk producers are correct. Concentration in buying must be balanced by concentration in selling. There is no other way to maintain this balance, for there is no other way to concentration in selling, than the effective organization of producers. That was found to be advantageous when buying was in many hands. It is necessary now when buying is concentrated in comparatively few hands. Producers who fail to maintain competent organizations have no right to complain if some short-sighted corporation takes advantage of its temporary power. To prevent such a costly error, costly to both interests in the end, is one of the functions of an effective organization of producers. They should not and probably will not overlook its importance.

Grape Growers Adopt New Plan

By JOHN U. RUEF

Pennsylvania State College

ALL PHASES of agricultural production have their ups and downs, but it is doubtful whether any single phase of agriculture has experienced the extended difficulties suffered by grape producers during the past few years. Overproduction, bumper crops, discrimination against unclassified products, increased cost of production, and unfavorable climatic conditions have all played their part in reducing the net returns per acre.

Circumstances have been such that growers in the eastern grape regions were more affected by the above mentioned factors than the growers of the Central West or the Pacific Coast sections. Erie county growers who were compelled to meet the strong competition of grapes from the Pacific Coast later experienced a glutted market which resulted in the thundering drop in prices from \$65 per ton to as low as \$24 per ton for fruit which cost on the average of \$125 per acre to produce, or the rate of \$60 per ton. With such a season as that of 1927 when the average returns were \$7.46 per acre, the prospects for grape-growing in the northwestern section of Pennsylvania were none too bright. The situation was serious but many growers were optimistic and determined that the united power of all growers was necessary to improve the grape industry.

Just what was to be the course of procedure and how plans were to be carried out was entrusted to a committee of the leading growers who made a thorough analysis of the problems confronting them and later drafted a program of work for the approval of the growers of the county.

The conclusion of the growers was that it would not be necessary to discontinue the grape industry, but that it would be necessary to employ practices

consequently a greater acreage than in 1927 is at this time sown to millet, rye or rape.

The present season has been very favorable for the development of foliage and the production of a heavy crop. Recalling past experience, and realizing that a heavy yield was not the only requisite for a profitable year, the growers took steps to secure packing and grading of the present season's crop. The New York state growers have graded their crop according to the United States standard grape grades during the past year and must, in accordance with state regulations, continue the same for the present season; conditions in the markets of Ohio were such that fruit from Pennsylvania must be graded to compete with the crop of that state. Consequently, there was but one recourse, the adoption of the United States standard grape grades for Erie county grapes.

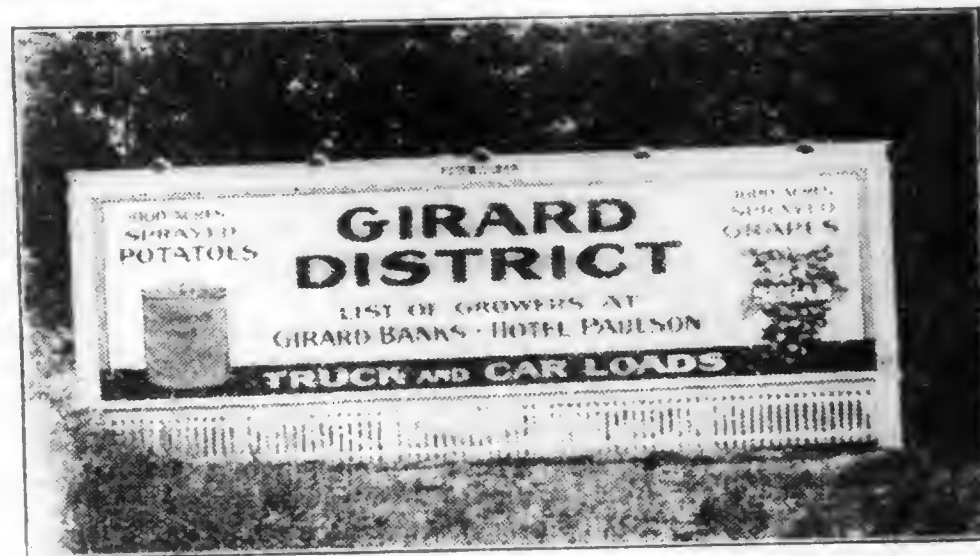
Eighty-Five Per Cent of Crop Graded

In the past only a very small percentage of the crop was graded, but this year it is estimated that 85 per cent of the crop will be graded according to the United States Standard. The Keystone Cooperative Grape Growers Exchange of North East and a number of independent buyers have been accepting grapes on the basis of grade. During the week of September 23 eight packing and grading demonstrations were conducted at various points in the county by the Erie County Agricultural Extension Association to familiarize the growers with the grade requirements in preparation for the shipping season which started about October 1. The grapes were delivered at the various receiving stations where trained inspectors of the Bureau of Markets classified the fruit.

There are two divisions of the county: the North East and the Girard districts. The disposal of grapes in these districts varies. The North East district has as its marketing agencies the grape juice factories and the shipment of table stock whereas the Girard district faces principally a trucking proposition, much of the crop being directed to northern Ohio markets. With this difference, the method of advertising adopted after reaching

the goal of high quality production and proper packing also varies.

Grape growers of the Girard district have united with the potato growers of the district to form a Growers' Advertising Club (not a cooperative selling organization) representing about a thousand acres of each, grapes and potatoes. The medium of advertising is: first, the reputation of the high quality products offered for sale, and second, a neat folder disclosing the superiority of sprayed grapes and potatoes and including a skeleton map of the section and the names of the growers of Girard, North Girard, Springfield, Fairview and West Erie. A third feature of the advertising program of the Growers' Club is a 12 by 41-foot illuminated sign-board along the highway west of Girard. The sign does justice to the grape growers by displaying an attractive bunch of grapes and favors the potato producers with a large cut of a graded bag of potatoes. This sign was made possible by assistance from business men of the district and through the



Grape and Potato Growers Advertised with Billboards

that would result in the increased production per acre of a high quality product, properly packed and graded, and amply advertised.

To start the movement for a higher quality product, the grape cultural program of the Erie County Horticultural Association was readily adopted by the growers of the county. The practices recommended in the program were those considered vital in the production of quality grapes. Each grower who manifested his intention of adopting the program was sent the card shown at the top of this page and requested to supply the desired information and return the card to the Erie County Association.

From available sources, reports state that vineyard fertilization was more general than in past years; spraying of a greater acreage was indicated by the increased number of sprayers placed in the county; and cultivation and thoroughness of the spraying was evident in the unusual thriftiness displayed by the vineyards. Every step in the program was given consideration by the growers. The practice of sowing a cover crop was well taken and

GRAPE CULTURE PROGRAM

The Erie County Horticultural Association

1. Apply fertilizer.
2. Plow vineyard early, not later than May 15.
3. Maintain a dust mulch with at least six (6) cultivations.
4. Apply at least two (2) Bordeaux sprays.
5. Stop cultivation around August 1, and sow a cover crop.

This vineyard program is the minimum necessary to grow quality grapes. I agree to follow this program in my vineyard in the season of 1928.

Name

No. Acres

Address

assessment of each member at the rate of 50 cents per acre.

With the zeal that growers have modified the vineyard operations, the steps they have taken in cooperating and in adopting the packing and grading of their product, and the advances made toward forming the public of the qualities of the Erie county Concord grape, it cannot be denied that the district is to gain a high position in the fancy table stock market as well as being one of the country's leading grape growing sections.

Loss in Trading Farm for Business Property

By FORMER FARMER

DON'T blame the agent if you traded your farm that was making only about two per cent on your investment of money for business property in a city said to be bringing in an income of five or more thousand dollars per year. He may have told you the truth. The building may have been completely rented when you got it and it may have looked like a haven of rest when compared with poor tenants, located ditches, pipe improvements and crop failures on the farm. It has been proclaimed from coast to coast and from the great lakes to the gulf that the farm is still the best investment in the world. They are, and they are, so make the best of your bargain. Perhaps you can trade for some other run-down farm if you work it right and do not talk down your property. You may even find the city man sick of his bargain and willing to give you your farm at the same time on which you exchanged. At least that is what was glad to do.

Greener Pastures

The old fable about the complaining people who were permitted to throw their troubles on a heap and select something that another had contributed to the collection well illustrates the present situation. The farmer knows how to deal with farm conditions and if he elects to carry his burden in town, city man is better versed to carry his burden in town than in the country. A farmer who bought a fine looking apartment house discovered that the plumbing was defective, the tenants behind with their rent, and the street paving coming on and the number of other things to worry about. He reached was back trying to head off open ditches and working with careless tenants. At least in the country had his "foot on his native heels" as the saying goes.

Jazz, movies, summer resorts, racing in and out of the country, getting up late in the morning and going to bed late at night are no more common in the country than in town. The people who have more money for gasoline and no money for proper food are more numerous in the country than in town. The landlord must suffer in other cases. Fences, buildings, soil and trees will be destroyed or injured, and a man who had not paid his rent for months hunted up the owner of the town house "hauled him out" for not repairing the window.

Of course there are good tenants in country town, honorable in their dealings and of great character, but the city man who has a reputation of that kind isn't in the market for a trade.

Eastern Farm Comments

By MILES HORST

D. H. STRICKLER of Union county, and Conner Brothers of Clarion county, stand out prominently among the members of the Pennsylvania Ton Litter Club, which has produced during the past four years 420 litters that have weighed 2,000 or more pounds per litter at 180 days of age. These two men have produced ten litters each year for the past five years, an achievement which at once indicates good management and care in hog raising.

OWNERS of land growing corn along streams, or of corn ground liable to be flooded during the winter in the corn borer infested area, have been advised by the State Department of Agriculture to have all corn and corn stalks removed from such areas by the first of December. This action is advised in order to prevent the spread of the borer through stalks carried down stream by high waters. This request should meet the full cooperation of all growers affected.

THIS timely advice comes from our School of Agriculture at State College, Pa.: "When replacing shingle roofs with metal roofing the lightning rods should be connected to the eaves at the four corners of the building instead of at the two peaks as in some old systems. There should be points on all the cupolas and chimneys. The ends of the hay tracks should be connected to the roof and the door track more than six feet away from electric light circuits should be grounded to the rods."

SNAKE ROOT was held responsible for the death of four pure-bred sows in a Wayne county herd recently. This weed grows in the higher wooded areas, is a plant from one to four feet high, has narrow pointed leaves and blooms during the month of October. Its blossoms being small and snow white. It poisons all kinds of livestock but usually only after large quantities of it have been consumed. It is found in most sections of the northeastern part of the United States.

POTATO growers will be interested in the endeavor now being made by the agricultural engineers of the Pennsylvania State College to improve the present machines designed to take the place of the human potato picker. Several machines of this type are already on the market and have been tried in Pennsylvania fields. But every one they have been cast aside as not practical because of the many rocks of gravel and stones they included with the potatoes. As now planned the machine at the College has platforms on each side where men stand to separate stones, vines and other foreign material from the potatoes before they reach the crates or are dumped in piles on the ground. It is the plan generally to improve the machine to the point where it will load the potatoes direct from the digger on to a wagon or truck.

H. J. WALTON of Chester county, Pa., and his two sons have set a new record for an acre of potatoes in Pennsylvania. Last Thursday in the presence of neighbors and under the supervision of County Agent Vandegrift they dug 696 bushels of potatoes from a measured acre, thereby surpassing the record set by Ray Briggs of Lackawanna county in 1924, which was 688 bushels on a measured acre. There was nothing unusual in the methods followed by Mr. Walton in producing this year's yield. He used certified Russet seed, planted on heavy bluegrass sod, in rows 28 inches apart and hills eight inches apart. He cultivated and sprayed thoroughly and used fertilizer liberally.

MANY Pennsylvania farmers are planning to post their land against the hunting of doe deer this year. This action undoubtedly will influence the sympathetic attitude that has been growing among the sportsmen and among game commissioners toward farmers who have been suffering from the depredations of deer. The Game Commission has set out to reduce the damages to farm crops by reducing the deer population. When, however, farmers fail to cooperate, even oppose such efforts, their appeals for relief in the future cannot help but be materially weakened.

THE thorough clean-up carried on in the corn fields of northwestern Pennsylvania in order to control the corn borer has proved that this method of control thoroughly carried out checks the spread of the corn borer. In fact the Pennsylvania Department of Agriculture reports that its scouts found a lighter corn borer infestation in Erie and Crawford counties this year than last year. In sections of the infested area where no attempt was made at a thorough clean-up the reverse is true; the infestation is heavier. The evidence shows that although the pest is bound to remain with us, corn growers need not worry, provided they adapt themselves to live with it and hold it in check by clean cultural methods.

A REGISTERED Holstein owned by J. A. Grelle of the Southern Franklin County Cow-Testing Association was the best milker in Pennsylvania during the month of September, her yield being 2,316 pounds. The best butterfat producer was



For Definite Results in Breeding

The farmer who breeds his sows for March litters has them ready for mating early in May before hot weather sets in, besides the animals are thriving on fresh green feed. Then they farrow again early in September and the breeding season is November when the sow is still under natural out-door conditions and feed is plentiful, tending to definite results in breeding. Much of the haphazard results in breeding come from the unnatural method of mating in hot summer weather or in midwinter. H. D.

a grade Guernsey owned by the Homestead Farm in the Wayne County Cow-Testing Association. Her mark was 92.4 pounds of butterfat. During the month 19,004 cows were tested in the 56 associations in active operation, and of these, 1,969 produced more than a thousand pounds of milk during the month; 1,439 of them produced more than 40 pounds of butterfat each during the month.

NO INVENTION of recent years has been taken over by farmers so quickly as has the radio. The 1924 triennial census shows 10,378 radios on Pennsylvania farms in that year, the 1927 census shows 34,672 radios on farms, or an increase over 1924 of 234 per cent. Every county in the state shows an increase in the latter year over that of the former and, as one would expect, the more remote areas in the state show an increase larger than those nearer the large metropolitan areas. It is only natural that this should be so for the radio is bringing to the farm home the market report, the theater, the public platform and the best of music. Those farthest from cities feel the need of these most keenly.

POTATO demonstrations conducted throughout the state this summer again call our attention to the fact that good seed and thorough spraying pay even though the price of potatoes be low. For example, a seed test conducted on a farm in Indiana county by County Agent Warner shows that certified Michigan Russets yielded 281.2 bushels per acre. Seed taken from the stock produced from certified Michigan Russets a year previous yielded 248.7 bushels per acre, and seed taken from stock grown two years from certified Michigan Russets produced 226.9 bushels per acre. A potato spraying

demonstration conducted on a farm in Northumberland county by County Agent Myer yielded on the sprayed plots at the rate of 139.1 bushels per acre and on the unsprayed plots treated in all other respects like the sprayed plots, 60.5 bushels per acre, or an increase due to spraying alone of 111.7 per cent.

STARTING at Jersey Shore, Pa., on Monday, October 29, a Better Dairy Sire Train will be conducted over the New York Central Lines westward toward the Ohio line, making twenty-two stops enroute. The train will consist of ten coaches, two of which will contain appropriate exhibits arranged by the Pennsylvania State College, the U. S. Department of Agriculture and the Pennsylvania Department of Agriculture. The whole purpose in conducting this train as expressed by those in charge is to aid in reducing the cost of milk production and in increasing the milk flow of dairy herds in the north and north central counties of the state. The train will carry a number of high-class young purebred dairy sires, and an opportunity will be given for farmers to trade in grade or scrub sires now in their herds for these pure-breds. The market price will be paid for the scrub delivered at the train.

New Jersey Notes

THE annual meeting of the New Jersey State Grange will be held at Atlantic City this year December 4 to 6, the first day of the annual meeting being held in conjunction with the annual meeting of the New Jersey State Horticultural Society. The State Grange Lecturers' Conference is scheduled as usual on the day preceding the convention. The Hotel Morton has again been selected as official Grange headquarters, whereas executive sessions will be held on the steel pier which has recently been remodeled and improved. The election of officers will take place on the morning of December 5 and the installation of the Sixth Degree will be conferred on candidates the same night. Installation of next year's officers will take place on the last day of the conference, December 6.

THROUGH arrangements just effected with one of the best mutual fire insurance companies, the New Jersey Farm Bureau now makes fire insurance available to its members for the first time. The insurance on farm buildings secured by the membership in this way is at a substantial saving, and it is handled in the same way as the automobile liability insurance, available to the membership for the past five years. Making a study of the situation in New Jersey, the Farm Bureau came to the conclusion that it was impossible for farmers to secure adequate fire protection on their buildings and personal property. E. P. Baylor, Jr., who has been in charge of the automobile insurance, is handling the new departure.

ONE HUNDRED and fifty New Jersey dairymen took part in the annual state dairymen's tour October 24 to 26, which this year visited the southwestern part of Connecticut and the lower part of the Hudson Valley in New York state. The tour included some of the best known herds in the East, including the Emmaline Farm in Orange county, one of the largest Guernsey breeding establishments in the world. Other stops included the farms of Jersey and Holstein breeders and certified milk producing plants. Special attention was paid to disease control and dairy herds, record making, cropping estimates, farm management costs and accounts and breeding practices.

THE first 12 months with the New Jersey two-cent tax on gasoline, final figures for which are just now available, produced an income to the state approximately double the estimates made at the time the tax was established in 1927. This tax brought into the New Jersey State Treasury a little over \$8,000,000, which is available for road improvement work and reduced by that sum the amount of money to be appropriated for highway improvement. Prior to the levying of the tax the annual income estimated was approximately \$4,000,000.

An American Editor Abroad

Irish Livestock and English Relic

By E. S. BAYARD

I SAW many cattle and horses standing away out on points or on high spots in the fields of Connemara and wondered what they were doing there. They were standing in the breeze where the flies would not bother them, and I soon learned to do the same thing. This reminds me that I saw, in the poorest part of Connemara, a couple of right good Angus bulls. I was told that they were the property of the Free State government, which evidently believes in the value of good blood, as it is a liberal patron of the sales of pure-bred cattle, sheep and swine in England and Scotland. At a recent Scotch ram sale both Irish governments bought freely, the two getting about 250 rams at prices which few American sheep-raisers would pay. Most of the cattle we saw in Ireland were Shorthorns and Angus. There are no Herefords in the North and very few in the South, judging by what we saw in the fields. The big Phoenix Park at Dublin, 1,700 acres, is grazed by cattle and sheep, mainly cattle, and among them I saw a couple of white-faces.

We stayed in Ireland longer than we expected but not long enough to see more than a fraction of the little island. By accident, or by neglect to observe coming events, we left Dublin for England on the Saturday preceding a bank holiday. I had read of bank holidays but had no conception of them until this time. They come on Monday, and with everybody who can get away from home they begin on the preceding Saturday—three days of holiday. On Monday the city of London is closed up tight—no business is transacted except what must be in transportation, hotels and restaurants. Everything is quieter than on Sunday, in fact, for everybody who can get out of town does so. Long lines of excursionists are seen at the railroad station, waiting patiently for their turn to enter the gates to the platform. The British form queues or lines, by twos, and do not crowd in a mass around the gates—the only people I have ever seen who keep themselves in order and in turn when they want to get into a show or a church or a train. They seem to know that the orderly way is the quickest way, but we Americans haven't found it out yet.

John Bunyan and John Wesley

We spent a part of the bank holiday in London in the church founded by John Wesley on City Road, where the tercentenary of John Bunyan's birth was being observed. The exercises were held in Wesley's Chapel, and while the rest were taking tea in the church parlors we saw the house where Wesley lived and worked and died, then visited his grave in the rear of the church. The house has become quite a museum of relics of the founder of the Methodist church and his brother Charles, who reposes in a graveyard across the road. The desks of the two Wesleys are fine pieces of furniture, each fitted with secret drawers which were difficult to detect and could be opened only by those who knew how. In one of these drawers, in the desk of Charles Wesley, the hymn "Jesus Lover of My Soul" was found after his death. All the furniture in the house of John Wesley was of fine quality though not showy, and the house itself is a good one even now. The man who showed us John Wesley's desk said that a visitor had offered £500 for it a few days before. I told him I would give twice £500 for it. It didn't cost me anything to make this liberal bid, for I knew

that as many thousands as I offered hundreds would not buy it, but it made him feel good, and it's a Christian duty to make others happy.

I must not forget the exercises in honor of John Bunyan. They were held in the church until 4 o'clock, then all the English adjourned for tea, after which they were resumed at the grave in Bunhill Fields across the way. This was the birth of a poor tinker observed three centuries later, while nobody paid any attention to the memory of the rich men, the learned men, the officials, the lords spiritual and temporal who derided him in his lifetime, denied him the right to speak in public, shut him up in jail for twelve years and gave him a chance to write a book that has been translated into more languages than any except the Bible.

The Ring of Essex

While the reader may be getting weary of these observations I am recording only a few of many things. For instance, I have said nothing of Westminster Abbey or the many other cathedrals, of Scott's Border Land, Stratford on Avon and other places which we visited. But I must record one addition to the interesting relics in Westminster Abbey since we first saw it four years ago. This is the ring of the Earl of Essex, lately restored to England by an American.

Queen Elizabeth gave this ring to Essex with a solemn promise to redeem it by his rescue if he were ever in great peril, for she loved him. He stirred up a rebellion, was taken, imprisoned in the Tower and condemned to death. Elizabeth signed one death warrant after waiting for Essex to send her his ring of promise. She recalled that and delayed signing another, still waiting for Essex to make his plea. Convinced at last that he would not make it, and hurt because he did not, the queen finally signed and the Earl was beheaded late in the year 1600. Two years after his death the Countess of Nottingham, then on her deathbed, sent for the Queen and confessed that Essex had sent the ring by her hand but she had not delivered it because her husband, his enemy, had forbidden her to do so. And now, 327 years later, the ring is put in a little glass case on the tomb of the Queen who never ceased to mourn for Essex. It's a strange old world.

SCOUTING for Japanese beetles during the past summer in sections of Pennsylvania beyond the 1928 quarantine line resulted in the finding of several beetles in Perry county, several in Bradford county and one at Lewisburg, Mifflin county. In each case the infestation was local.

A TRI-STATE APPLE SHOW for the growers of western Pennsylvania, eastern Ohio and the northern Pan-Handle of West Virginia, will be held at Pittsburgh, November 1st to 3rd. The show which is the first of its kind is sponsored by the Pittsburgh Chamber of Commerce and the banks of the districts represented. Premiums amounting to \$2,500 will be awarded to the winners in five classes and three sub-classes. The varieties to be exhibited include Grimes Golden, Jonathan, Delicious, McIntosh, Stayman, Winter Banana, Baldwin, Rome Beauty, Northern Spy and York Imperial.

Get Rid of the Boarder Plants

By GILBERT S. WATTS

IT recently was my privilege to attend a day of meetings for market gardeners in Bristol county, Massachusetts, and to visit three vegetable farms in that district. For the most part these farms are relatively small. Operations are conducted in an intensive manner. It is a good region to take lessons in thoroughness, an attribute that almost invariably characterizes the really good gardener whether he or she grows for home or for market.



In one of the sessions a very successful gardener of English birth summed up his experiences. He began on an abandoned farm 30 years ago, "without a cent." Two things he said were especially strong: "Quality vegetables are the only foundation for a profitable market gardening business" and "Get rid of the boarder plants." He pointed out that highly bred seeds are the primary factor to consider in aiming to produce quality vegetables and that getting rid of the "boarder plants" is also a matter of planting selected seed of proved merit. I appreciate the fact that the majority of the readers of this department are interested more in home gardening, but surely quality products are as important for home consumption as for market. Neither can the home gardener afford to keep boarder plants. The speaker remarked that we have heard much of "boarder cows" and "boarder hens" and that it is time to make a concerted drive on boarder plants, for example, the off type tomato plants and barren corn stalks that show up in most plantings. Home selection of seed from superior plants of some crops and the purchase of the best obtainable seed of others was stressed.

Aims for Variety

Another speaker told of his experiences in selling a variety of vegetables direct to consumers at his roadside store and market. This grower not only sells his own products but when short of his own vegetables fills out his display with locally-grown products of high quality. He has been very successful and feels he is doing a service in making available to the public a full line of seasonal produce. His idea is that customers thereby are enabled to secure as many kinds of produce as they may desire right there at his market without the necessity of having to trip around.

On the other side of the case, the roadside market operator who short-handedly confines himself to selling his own products automatically puts a strong pressure on himself to produce more of the things that are in demand and I believe, in most instances, will hereby be brought to a fuller realization of the productive capacity of his farm. An interesting point made by this speaker was that he never sells peas for more or less than \$1 a peck. Several years ago he concluded that this was the lowest figure at which he could sell peas at retail and make a reasonable profit. He figured he would sell peas at that price or quit growing them. During the three years this price has been in effect he never has failed to sell all his peas but he takes great care to see that only peas of fully satisfying quality are offered.

The evening I saw this grower's market in operation and it was indeed a busy place. At least a half dozen cars were parked around. A striking point

was the modesty of the establishment, an abandoned blacksmith shop at the junction of two roads having been cleaned up and inexpensively modified to suit its new use.

Fertilizers versus Organic Matter

By S. W. FLETCHER

TWENTY years ago the late Dr. J. P. Stewart began an experiment in apple orchard fertilization at State College. There are sixteen plots of trees, twelve trees in a plot, four each of Baldwin, Stayman and York. These plots have received applications of nitrogen, potash and phosphorus, alone and in various combinations in comparison with unfertilized plots. Doctor Anthony reports that no dependable difference in growth or yield could be observed during the first fifteen years. About five years ago distinct differences began to appear, and these are accentuated each year.

These differences are due, he says, not to the effect of the fertilizers on the trees themselves, but to their effect on the cover crops that have been grown in the orchard every year since the experiment was started. Wherever nitrogen and phosphorus have been used, the growth of the millet cover crop, sown in late summer, is much heavier. When the cover crop is disked under, it makes organic matter, which increases the water-holding capacity of the soil, makes the native plant food more available, puts the soil in better heart and is beneficial in other ways.

Indirect Effect Now Appearing

The direct effect of the different fertilizer treatments on cover crop growth has been clearly visible for many years; the indirect effect of the fertilizers on the trees, as a result of differences in cover crop growth, is only just now appearing. So it has come about that an experiment that was planned to supply evidence on the best method of fertilizing a cultivated orchard apparently shows only this—that the best fertilizer is the one that will make the heaviest growth of cover crop. Almost invariably this means phosphorus, usually nitrogen, but seldom potash. On adjacent plots that are in permanent sod the same story may be read in the turf and in the trees—those fertilizers that have encouraged the heaviest growth of sod eventually have resulted in the highest producing trees. Whether the soil mulch or the tillage and cover crop method is used, in both cases the main objective in fertilizing is not so much to nourish the trees direct as to build up the organic content of the soil. There is, of course, a direct and immediate effect on the tree from an early spring application of nitrate of soda.

Lift Dahlia Roots

WILL you please tell me through your valuable paper if dahlia bulbs or the potatoes can be left in the ground or will they have to be raised and kept in a dry place? Both are tender, and are killed by a severe freeze. As soon as the dahlia plants are killed by frost, lift them, remove all soil possible, dry them a few hours in the sun, then store them in a cellar or some other cool place that is frost proof. If the cellar is very dry, so that the roots would shrivel, store them in a box or barrel of dry sand, or sawdust. S. W. F.

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Pennsylvania Hog Notes

By W. F. McSPARRAN

IT is singular about hogs. Last year they were really the proverbial "drug in the market," but now the farmer who is well stocked up on porkers is wearing a smile that means, among other things, ability to meet the next payments on the automobile. With a fairly abundant corn crop now being harvested a nimble penny can be turned feeding the corn, or as much of it as they will use economically, to the swine.

Corn and hogs make one of the great harmonies of agriculture. The two crops help marvelously—help with paying for the auto as I have hinted, and help with the taxes, the electric equipment for the farmstead, the electric iron, sweeper, washer and those things dear to the hearts of the Marthas in the homes. I know of one case in particular where they have helped materially with the youngsters away at colleges and the like.

The hogs on the farm too often have to get along the best they can with a kind of hit or miss attention, in the various lines of their management. The times of their feeding are not fixed regular, they may have much or little feed, their quarters are not always comfortable nor sanitary, they are not encouraged in well doing and well being, they are often called hard names, even unto profane ones, because they are not well fenced. Hunger is an irresistible urge to a hog that can find an opening to newer fields and greener pastures.

such a dam the new breeders should be selected. The little runt or the one of least thrift not saved as the future brood sow, as being less salable than her better sisters; but the whole litter as it grows should be gone over and the individual showing the most desirable points—length, depth, bone, ham, head, back, should be retained.

How much the size of the litters depends on the dam and how much on the sire I am too ignorant to venture an opinion on, but I like to take the benefit of all doubts and have both sire and dam from large litters, and even then we sometimes fail in our desires, as all well-laid plans of breeding are liable to be a "pig in a poke."

Just now on the farms of the writer we have had three sows farrow 35 pigs—one 13 and the other two 11 each. These are mature sows and the sire



Above is shown Bob, champion gelding at this year's Butler county (Pa.) Fair, where he defeated the champion of the 1928 Pittsburgh work horse parade champion. Bob was shown at four fairs and made champion gelding at each. He is five years old and weighs over a ton. He is owned by Grant Cruickshank & Sons of Butler county.

A Visit to Gilmer County, West Virginia

By W. D. ZINN

IT was the pleasure of the writer to meet a group of farmers in Glenville, Gilmer county, on the sixth of October, and for two hours discuss with them the problems of their farms. The pessimist who is saying that farmers are no longer interested in their work should have been in this meeting. On account of the overhead expenses it is more important than ever before that farmers should make the fewest possible mistakes. The taxes on our farms today have reached a point where they have become equal to a rent. Twenty-five years ago I rented a certain farm for less money than the owners are paying in taxes now.

Gilmer county is primarily a grazing section. Her bluegrass pastures make it an ideal home for good livestock and the farmers have learned that good ones only are profitable. No county in the state has made greater improvement in her livestock.

The good roads that are being built are going to advertise that county in such a way that it will become famous for good livestock. The soil is very fertile and naturally adapted to the growing of pasture grasses. I have seen as good corn grow in this county as I ever saw in any state, Ohio not excepted.

On closing the meeting the farmers said: "If you will come back next year we will give you a much larger crowd." I promised them that I would do it if I were living.

It was a real pleasure to meet these farmers, some of whom I have been meeting for the last quarter of a century.

To Kill Hickory Grubs

Every farmer who has had any experience knows that hickory sprouts are hard to kill. I bought a farm in 1902 and it had some hickory on it that had been cut down to the ground many years before I got it. Most of these are still living although they have been cut every year once and every year twice.

Recently I took a pint of used auto

oil and poured it over the hickory sprouts. A few days I went back to see what had happened to them and found the leaves had turned up on most of them. Thousands of grubs of all sizes were found in the soil and the hickory leaves were all eaten. I would suggest that the leaves be sprayed with this oil. I would suggest that the leaves be sprayed with this oil.

A Cover Crop is not too late to a cover crop on ground and will be until after the first of November, frost is down. The losing plant is the time when the bare if the temperature of the soil is

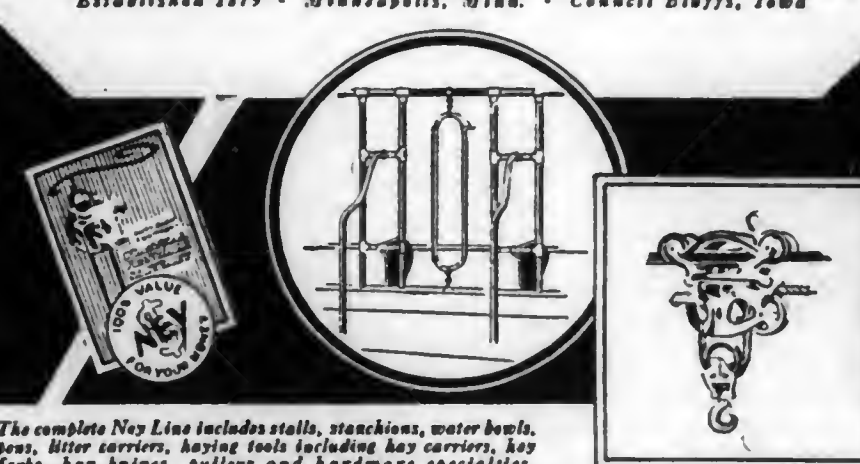
Emmert Baer, who claims Franklin Co., Pa., corn championship, with a sample of 13-ft. corn.

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Write wants. O. C. POWELL, Ada, Ohio.

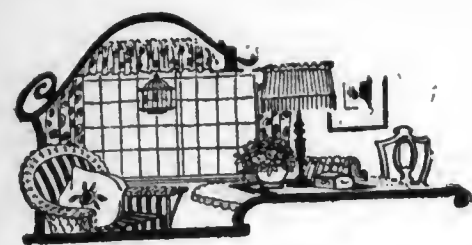
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Morgan Rogers of Harrison county, W. Va., and his champion yearling Southdown ewe.



What's In the Kitchen?

By ALDIS DUNBAR

MODEL kitchens of today have even the enamel ware and brooms tinted to make color-harmonies, yet I wonder if you have ever been in one of them on ironing day? Whether old-fashioned heavyweight "flats," or the more up-to-date electric iron is used, any one coming suddenly to the scene of action wonders at the queer looking affair used as an ironing board—if any is used at all! And holders used resemble the ironing cloth in their endless number of torn, burned holes, that show all sorts of ragged edges of particularly colored cloth through them. In far too many kitchens rage, as working equipment, are in evidence on ironing day. When they give out more are patched on. Cousin Sabina knows a valuable trick. She covers her ironing-board, first of all, with several thicknesses of unbleached cotton flannel, or blanket, drawn perfectly smooth, and tacked underneath about three inches from edge of sides and small end and six inches on the large end. She keeps the cloth as flat as possible, to lessen its bulk. Then the outer cover, using new unbleached muslin shaped to fit, is made like a bag. It is closed across the narrow end, drawn smoothly on, and tied firm in place with tapes at the larger end.

Can Buy Covers

She has used this style covers for years, and still makes her own, though one can now buy them ready-made. A cover like this can be taken off and boiled clean if it gets smudged. Cousin Sabina said: "I used to tack on this outer cover, over the cotton flannel, but this is a hundred times better. And don't forget to admire my fine big screw-eye at the end of the board, to hang it up by."

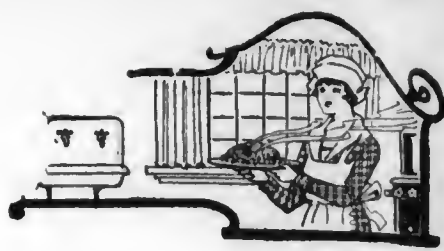
Today she has her cherished electric iron with protected handle, but all the holders in her kitchen still match the ironing board's cover. They are several thicknesses of unbleached outing flannel, covered with muslin, and a few cross-stitches in the middle. At the corner of each is a brass ring, which is easily taken off a hook in a hurry, when a loop would catch. "Rings don't interfere with their going into the wash and being boiled clean every week," she said. "There is no color to run, so they come out fresh, and I'm never ashamed to have them hanging up. I make plenty, so there's no need to use a towel. I've seen too many serious scalds and smashed crockery because no holder was in sight, and somebody caught up a damp dish-cloth or towel to lift a hot dish. Of course the steam went right through—and then—disaster!"

Looking at a scar on my hand, I thought so, too!

Candied citron.—Soak in salt water (one teaspoonful salt to one quart of water) over night, drain and cook ten minutes, drain and repeat ten minutes cooking and draining four times. Make syrup of two cupfuls sugar and one cupful water, put in citron and cook five minutes or until transparent, then roll in granulated sugar.

MRS. F. R. CHAPIN.

The Farm Home



It's a Capital Idea to Have Your Ironing Board Built-in.

The Kitchen Cabinet at Halloween

By GERTRUDE S. STEWART

"MAKE me a child again, just for tonight." At this jovial season we should all forget our grown-up dispositions. We should romp and eat and be young with the children. No matter how many outside parties you are attending, do plan a few hours of family fun.

No one is too busy to prepare the needed three meals. Let one of them be the family party and then have some fun. Trim up the table and maybe the dining room. Jack-o'-lanterns are easily made with real pumpkins and form ideal centerpieces. Black cats, witches, owls and ghostly pictures add their bit, and all of these plans may be left to the fascinated children.

One year I served my family supper

from paper jack-o'-lanterns. It was such a surprise. The novel lunch box held brown bread sandwiches, ghost salad, cat cheese, a potato doughnut and a pumpkin tart. The ghost salad was on a firm nest of lettuce leaves right in the center of the jack-o'-lantern with all other foods grouped round it. Witches brew was served on the side.

To make the salad, use a whole half of canned peach or pear, round side up on the lettuce. Stick cloves into the fruit for eyes and lay one broadside for the nose. Then curve slices of rosy pimiento for mouth. Surround the fruit with dates and use your favorite salad dressing.

Cat cheese is any variety of cheese

cut cat-shaped in honor of the day. Potato doughnuts are delicious and nourishing. Cream two tablespoonsful butter; add one and one-half cupfuls sugar; three egg yolks well beaten; one cupful hot mashed potato; one-half cupful evaporated milk diluted with one-half cupful water added alternately with four cupfuls sifted flour, with which is sifted two teaspoonfuls baking powder, one-half teaspoonful salt; and one-fourth teaspoonful nutmeg. Beat well after each addition in the order named. Fold in the stiffly beaten egg whites. Cut into thirds. Knead lightly on floured board, then roll. Shape and cut as desired, and fry golden brown in deep hot fat. When cooled roll in powdered sugar.

Pumpkin tarts are nothing other than small pies. They may be made in your gem or muffin pans if you have no tart tins.

Witches brew is a cup of hot cocoa decorated with a marshmallow. Faces are easily made on marshmallows, using chocolate coating or any color vegetable dye. Any ordinary paint brush will do the trick and the children enjoy doing it as much as sampling the "brew."

In the very bottom of each jack-o'-lantern is found a wrapped candle which suggests another hour's merriment. Then play some good old-time games. Even granddaddy enjoys "bobbing for apples" and joins merrily in all the stunts.

Fortunes are always in order and should be planned to suit the family, thimbles for the girls, books for teacher, rings for coming weddings, buttons for bachelors, a coin for wealth, etc. etc. Hide them in the lunch box.

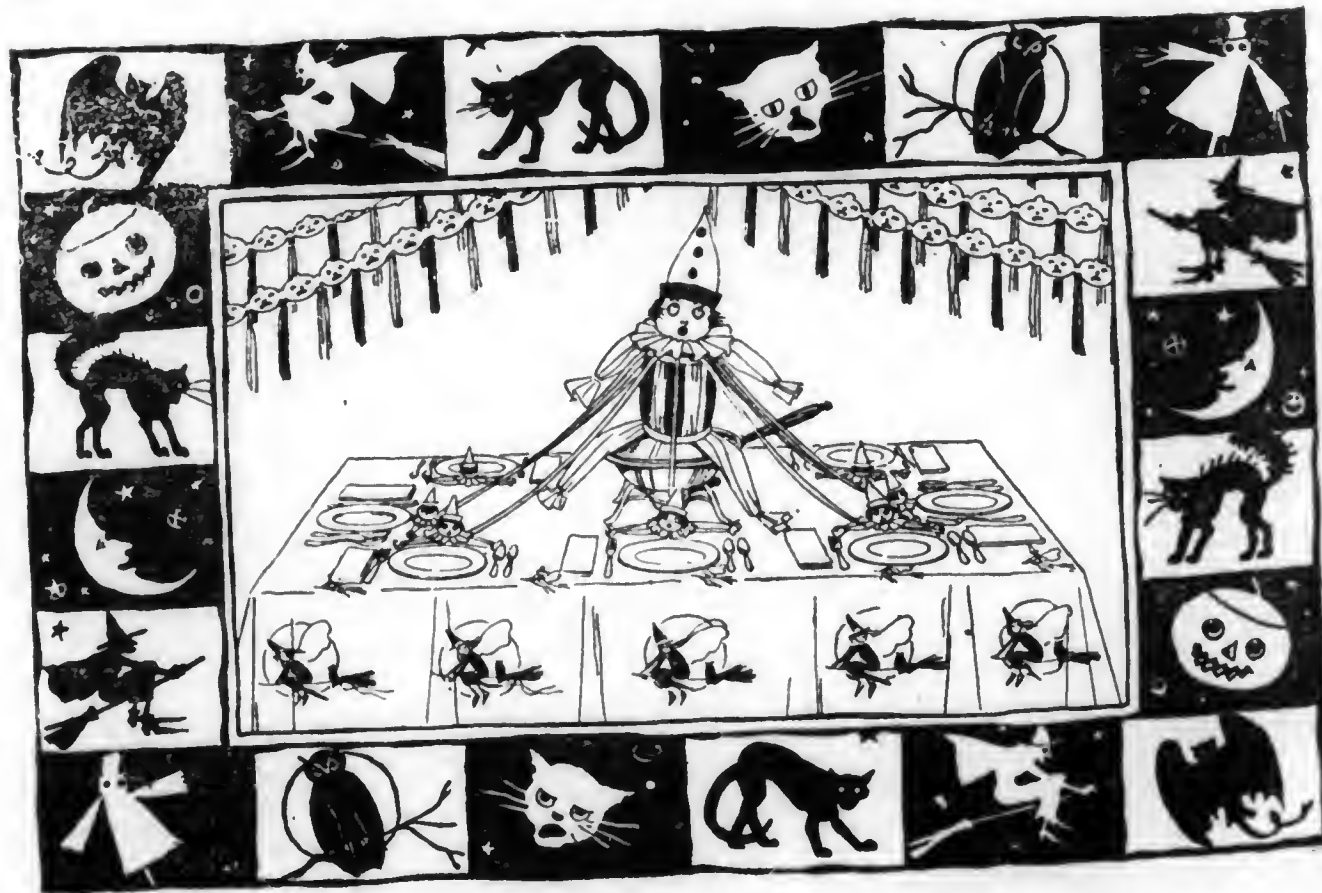
With a few plans well in mind your "family party" is bound to be a real success, and many a time from now until October, 1929, you will be asked to stage another Halloween frolic.

GERTRUDE S. STEWART.

Sandwich Loaf

One cupful left-over beef ground, one egg, half cupful tomatoes. Season with salt, pepper and celery salt. One cupful cracker crumbs. Make into a loaf, but don't steam or bake too hard. Good when warm or slice when cold for sandwich filling.

MILDRED POST.



The Meaning of Play

By HEPSY NEFF

FARM folks need not be told that all animals play from the first month of life almost to the last. In fact, much of our knowledge of the laws of health have come from man's study of animals. It has been said that man is the only animal that cats and goes directly to his work; other animals rest after eating.



Seldom do wild animals eat any harmful weed or plant or drink from polluted water even when suffering from thirst. What a different world this would be if no human being would permit any harmful substance to touch his lips but would as faithfully do the things that make for health as he now does the things that injure health. Some day we shall learn how to be as healthy as animals and at the same time have all the best things which we now enjoy with many more added.

The oldest experience as well as the newest science agree that more gains in the progress of the race can be made in the first ten years of life (with the first year leading all others) than in any ten years of the entire life span. A two-year-old boy who has been playing in my yard for the past four months has been a continuous proof of real human needs. During the first half of the day he is perpetually busy, happy and contented in his play. If I miss him for a few hours in the early afternoon he is back with new joy in his play until sunset. Far more often he plays all day and with a steady increase of screams and fights as his weariness increases. In fact, the more weary he becomes the more he fights against rest. The wise grandmother often meets the situation by saying she is so tired and asks him to go with her to her room while she tells him about a cricket she found under the window, or some other interesting thing. In half an hour he is sound asleep and we have a very different child for the remainder of the day.

Value of Rest

Many educational centers provide nursery schools for little children, keeping them open from eight to twelve. At ten o'clock they have a light lunch followed by a twenty minute rest lying down; a real period of silence when the teachers speak in whispers with finger on lips and a hush that brings instant response. Shall we ever learn how easy it is to teach by example? We grown-ups know how long a weariness that brings an "aching all over," hangs on; how we cannot sleep while the ache lasts. Too prolonged activity in a child is a serious hindrance to growth and the lowered resistance means colds that are persistent and stubborn. But the same results follow prolonged overstrain whether at five or at fifty years.

A noted Chicago lawyer who has learned his lesson locks the door of his private office after lunch and there is no admission for any one until after two o'clock. Of course occasional periods of overstrain cannot be wholly avoided. We do get into hard places where there is no way out but to work out. But we need to learn that play can be even more exhausting and harmful than work.

A part of the value of play depends upon pleasant surroundings and pleasant companions. Some of us country

lovers can have heaps of fun all by ourselves, planting things, watching things grow and making improvements in our surroundings. But what could one do on a twenty-five-foot lot; and thousands of mentally destitute haven't even a foot of ground they can call their own. Here is one of the great blessings of the farm. Of course games in the open air make a real contribution to health even to those who only sit on the "bleachers" in a good sunshine. Games that call for a degree of skill and alertness of mind always yield better results than mere obeying rules, like games of cards and dancing.

Again Big Business offers us small folks some worthwhile facts which it has taken the trouble to learn. Big industrial plants find that the health of their workers is absolutely necessary to any profitable return on the time and capital invested. Therefore a salaried supervisor of health activities is kept on their pay roll and the best means of recreation are constantly before their workers. That such supervisors list dancing as "a chief obstacle to efficiency" among their workers is a fact we cannot afford to ignore. Perhaps dancing as a means of recreation in mid-afternoon for one hour a week might show more favorable results but the usual dancing after a busy day and in badly ventilated rooms for three or four hours at night is regarded as distinctly harmful to health. Here again our old time farm parties which began at seven o'clock and ended at ten o'clock show their superior claims to respect and good judgment.

Choose the Best

Are we such blind worshippers of a few signs of wealth and fashion that we follow any red wagon that comes our way? But more and more as business demands health when it offers even fair salaries, we shall all come into line. More and more as success depends upon independent thinking we shall learn to do our own thinking and provide our own means of conserving and promoting health. Work and play, rest and sleep, food and exercise are the foundations. There is an unailing rule for our guidance and which needs only testing to be accepted.

Every human experience whether of work or play; whether in reading a good book or in sharing a pleasant evening with friends or seeing a good movie; every experience which sends us out into a new day glad to be alive, glad to work with a new purpose to do our best; to make our lives count for something worth while as all whom the world wants to remember have done; every experience which leaves any one of the above named effects is worth repeating. Every experience which lacks these after effects drags us down because it hangs like a millstone about our necks. Freedom to choose the best is the great builder of life and America offers this freedom to all her people.

Grandmother's crumb pie.—Four cupfuls flour, two cupfuls brown sugar, one cupful butter and lard mixed or one and one-half cupfuls butter, one pint cupful sour cream, one teaspoonful each of soda and vanilla. Mix flour, sugar and butter together. Rub crumbs very fine. Take out a small cupful of the crumbs to sprinkle on top of the pies. Add sour cream with soda to remainder after taking out the cupful of crumbs, then pour in cream and mix to a batter, adding vanilla last. Have crusts ready, pour in and bake in a moderate oven. This makes three pies. Grandmother says this is fine and I hope you will find it to be so.

FLORA MARION HARTLEY.



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EVENTS CAUGHT BY THE CAMERA



1. "Betty" Robinson, winner of the 100-meter event at the Olympic games, has received many honors, but she's still a home girl and a schoolgirl. "Betty" is shown back at the old routine at Thornton High School.

2. Trial flight, in England, of the biggest, fastest and most powerful flying boat in the world, the Sport Bristol "Calcutta." She is built entirely of metal.

3. A. D. Schwarzkopf, Jr., of Norfolk, Va., winner of the model aircraft building championship of the United States, recently held at Detroit, with his winning model which he exhibited and demonstrated at the Cavalier, Virginia Beach, Virginia.

4. Each year officials of the Department of Agriculture at Washington check and measure about 6,000 various sized vegetable baskets to ascertain that they give the buyers honest measure. Photo shows Fred E. De Groot, assistant tester, and H. O. Spil-

man, market inspector, testing a basket at their Washington laboratory.

5. Warships of the first line of defense steaming into the sun during the annual target practice in the Pacific Drill Grounds.

6. An old photograph of the three generations in the ruling house of England, dressed in naval uniforms. Left to right: King George; his father, the late King Edward, and his son, the Prince of Wales.

October 27, 1928.

PENNSYLVANIA FARMER

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A Night With Kit Carson

The Old Santa Fe Trader's Story

By LEWIS B. MILLER

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ONE evening—this happened many years ago—I called to see my new acquaintance, later to become an intimate friend, the old Santa Fe trader. His name was William S. McKnight. He received me in his usual courteous, deferential way. For he had both the speech and the manners of an old-time gentleman, learned, doubtless, from his Virginia father. Sleet was rattling against the window-panes; but a well-filled, glowing grate and the softly shaded gas light gave an air of coziness to the old-fashioned, high-ceilinged room. Both of us were soon sitting comfortably before the fire.

White-haired and white-bearded was this long-time plainsman. For nearly four-score years had passed over his head. I already knew a little of his eventful history, and was now and later to learn more of it. Born in St. Louis in 1817, he had for an uncle on his mother's side John Scott, the first congressman from the state of Missouri. It was for this man that he had received his middle name. Another of his uncles, on his father's side, was Robert McKnight, the first trader to travel the afterwards famous Santa Fe Trail.

In 1809, as my friend remembered it, or in 1812, as Hancock and many other historians give the date—the latter date is correct—my friend's uncle, with several other men, packed some goods on mules, and setting out from St. Charles, near St. Louis, with no guide but their compass and a rude map, made their way across the pathless wilds to New Mexico. The whole party paid dearly for their rashness in venturing into the forbidden territory of the king of Spain. While doing a profitable business there, they were arrested by an officer and soldiers of the Spanish army, and thrown into prison. Two of the traders finally escaped; but McKnight was hurried away to Chihuahua, where he dragged out nine wretched years, either locked up in a dungeon, or working under a guard at paving the streets. And all that time he wore irons. Not till the Spanish government had been driven out of Mexico did he and his fellow-adventurers—those who had survived—regain their liberty.

In the spring of 1835, when seventeen years of age, and not in the best of health, my friend set out from St. Louis on a two-years' journey through the Southwest. First he traveled as far as Bent's Fort in company with Charles Bent, the proprietor of the latter was only a trading post—and afterwards, by appointment, the first American governor of New Mexico. From Bent's Fort young McKnight, still with Captain Bent and his wagon-train, proceeded to Santa Fe. After two or three months there he joined another party and traveled on, a hundred and fifty miles farther, into what is now Arizona. His destination was Santa Rita, where his uncle was then mining, working a copper mine with Mexican labor. Disgusted with the indifference of his country that had allowed him to languish so long in Mexican dungeons, Robert McKnight never returned to the United States to live.

Not long after making his way back to St. Louis, by way of Chihuahua, Matamoros and New Orleans, young McKnight formed a partnership with a cousin and another man, and himself entered the Santa Fe trade. The partners established one store in Santa Fe and another in Chihuahua. And for eighteen years that business was kept up. Owing to the abundance of silver in Mexico, money was plentiful, business good, and profits large.

The goods for the Santa Fe and Chihuahua stores were brought in St. Louis and other cities. After being conveyed by steamboats to Westport, near where Kansas City would some day spring up, they were loaded on big, wide-tired wagons, six thousand pounds a wagon, and wagoned across the plains. Young McKnight, being fond of the life on the trail, usually had charge of the wagons belonging to his partners and himself. Twice each year, and sometimes oftener, he made a trip east and back, once in the spring and once in the fall. When their business was at its best, their half-yearly supply of goods would load more than twenty wagons. Each wagon was drawn by ten mules or twelve oxen. The wagons were commonly Texas cattle, and would travel as fast as the mules.

Every wagon had its own driver; and there was also a teamster, who had charge of all the wagons, teams and teamsters. Usually, for the sake of greater safety, several of the smaller wagon-trains would unite and make the journey together. Sixty wagons would be a hundred wagons in one of

those consolidated trains, and occasionally as many as two hundred.

At the time when the Santa Fe trade was most flourishing, the Mexican War had not been fought, and the map of the United States looked very little like it does now. Gold had not yet been discovered in California, and the whole vast region from the Missouri River to the Pacific Ocean was little better than a wilderness. One could travel hundreds of miles there without once catching sight of a civilized habitation. From the western boundary of Missouri to Santa Fe, probably, not a white settler could be found.

Several tribes of savage Indians had their hunting grounds in the plains country. They kept up an almost ceaseless warfare, occasionally among themselves, but oftener upon the white travelers passing through. From time to time they attacked wagon-trains boldly. But they were always hovering near,

To Friends of the Brown Family

THE consolidation of Pennsylvania's two weekly farm papers made it necessary to suspend temporarily the story of "The Adventures of the Brown Family," which was being published serially in the old Pennsylvania Farmer. Friends of the Brown Family will welcome the news that the story will be resumed in these columns next week. A synopsis of earlier chapters will enable new readers to enjoy the mysterious adventures that befall Father Brown, Beth and Hal and all the rest.

watching for a chance to stampede the teams at night, or to shoot down and scalp any unwary pale-face who might venture away from the wagon-train's shelter.

And there were other perils. Vast droves of buffaloes, grazing along the trail, might stampede any night and sweep the grazing teams away with them. Wind-driven fires, rushing across the great, grassy regions, often threatened the whole train with destruction. Long, forced marches were also necessary, in dry seasons, in order to cross extensive waterless regions.

"YOU must have known the famous guide and Indian-fighter, Kit Carson," I remarked, after the old trader had spent an hour and more telling me of plains life and his own thrilling experiences.

"Oh, yes," was the reply. "I got acquainted with Kit not long after I first went out there. He often dropped into Santa Fe, and I knew him well. With all his reputation as a fighter, he was a modest, mild-mannered, good-natured fellow, generally well liked.

"Never shall I forget one night that I spent with him. In the spring of 1847 it was. With a party of ten or twelve men—teamsters—I was on my way from Santa Fe to St. Louis to buy goods.

"We never brought back empty wagons from Santa Fe. There was a good demand for wagons out there, and we always sold ours and had new ones made in St. Louis. Our teams we also disposed of in Mexico. We kept only mules enough to ride back, and to pull the wagon or two that hauled our supplies. But I always brought a dozen or so of experienced teamsters and herd-men with me. They served as a bodyguard on the trip east, and were of great assistance in managing the wagons when we traveled west again. In fact, I should have been afraid to start out with a wagon-train and no experienced hands.

"On the trip I am telling you of, we had but one wagon with us. It carried our provisions, tents,

blankets, cooking-vessels, water-kegs and supplies of various kinds. In it we also hauled the money I was bringing east to buy goods with. Then, as

now, the principal circulating medium in Mexico was silver—silver coin. A thousand dollars in silver weighs sixty pounds; and it doesn't take many thousand dollars to make an ordinary wagon-load."

"How did you carry your silver, Mr. McKnight—in bags?" I ventured to inquire.

"Well, something like bags. We sewed it up in wet rawhide, a thousand dollars in a package, and then dropped the packages loose into our wagon-bed. As the rawhide dried it shrunk up; and it soon got so hard and tight that our banker here in St. Louis told me they had to keep a hatchet in the bank to chop open our money with. In that shape there was little danger of its being stolen. A thief couldn't run very fast or very far with sixty pounds.

"ONE day, a little before sunset, our party arrived at Walnut Creek, in what is now the state of Kansas. Walnut Creek had the first timber on the trip east, and the last on the trip west. At the time I was riding a little mule named Charlotte. A shrewd little beast was Charlotte, as hardy as they make mules, and an expert in taking care of herself. She possessed numerous good traits as a saddle-animal, as well as a few bad traits. I had owned her two or three years. Several times already I had ridden her across the plains, and I had become much attached to her.

"We knew that the country was swarming with hostile Indians—lawnees. Being only a small outfit, we had to be forever on the lookout to keep them from taking us by surprise. There wasn't much timber along Walnut Creek, but enough to conceal a big force of redskins if they had cared to lie in wait for us.

"Nothing suspicious was noticed till I arrived at the creek-bank. As it happened, I was riding fifty or seventy-five yards in advance of the others. Charlotte trotted along willingly enough till she came to where the trail led down the bank to the water. There she stopped short and snorted suspiciously several times. And not another step would she budge.

"Well, I urged and coaxed and scolded and spurred her by turns, but that's all the good it did. I simply couldn't get the stubborn little brute down the bank.

"By this time the other mounted men and the wagon had caught up with me. 'Boys,' I said, 'to me this looks very suspicious. Charlotte never imagines things, and she never gets scared at her shadow. She smells red men. That's what's the matter with Charlotte!'

"By this time some of the other mules were snorting suspiciously, and they all refused to venture down into the creek.

"'Better look to your shooting-irons, boys,' I told them. 'Not much telling what's hiding in this strip of woods just now.' We were all well armed, every man with a rifle and two six-shooters.

"Finally, after we had made sure that no redskins were lurking close by, I dismounted and tried leading my mule. She was willing to follow when I went before; and all the other mules followed her.

"We had fully expected to camp near the creek. But our animals were still excited. Even while drinking they kept snorting and looking about uneasily. So we were turning them all, the wagon-mules as well as our saddle-animals, then filled our water-kegs, gathered up a few armfuls of firewood, and traveled on at least a mile.

"The spot we picked out for a camp was a high point in the open prairie. On all sides the ground sloped downward slightly. Before stopping I had made sure that there were no ravines near that an attacking party could find shelter in.

"The wagon we stopped on the highest point, and then the wagon-mules were stripped of their harness and the saddle-mules of their saddles. By this time the sun was setting. The cook kindled a fire and prepared supper. It was growing dark when we finished eating. Then we drove down stakes and lariatied out all our mules, as close to camp as there was grazing room for them. After that we smothered out our camp-fire to keep it from attracting the redskins' attention, though we didn't doubt that they had already located our stopping-place. (To be continued)

The National Dairy Exposition

(Continued from page 13.)

came to junior yearlings and the daughter of Sybil's Successor shown by Mrs. George Eustis topped her class of 29 entries and finally won the junior championship. The runner-up was the Elm Hill senior yearling, a daughter of Xenia Sultan.

Many Springs Farm, of Pennsylvania, a consistent winner throughout the show, made an especially strong show in the get of sire class, annexing the blue ribbon on the get of Dreaming Sultan, which was one of the sensations of the Jersey show.

Holsteins

WISCONSIN and Illinois had their day in court Thursday, and while thirteen states had made entries these two carried off practically every blue and purple ribbon and banner. There were in reality only three outstanding first-prize winners, Elmwood Farm of Illinois, J. B. McDonald of Wisconsin, and the state institutions of that same state.

Other good herds were there in numbers, too, and had these three exhibitors been absent there still would have been some outstanding winners and champions at that show. It was not so large in numbers, almost a hundred below the Jerseys, but it was a quality show throughout every class. Champions that had never known the bitter taste of defeat before, some in the East and others West, clashed here on Dixie soil for the first time; and some formerly undefeated animals even had to take a third or fourth position here. The great outstanding winners of the big American shows met in a battle royal here, and it was no small job for the judges, Axel Hanson, to pick his lineups, and he did it well.

It was for the most part an occasion for piling new honors on the heads already crowned in big shows. The aged bulls brought out the best of the breed, and it was finally headed by Sir Fobes Ormsby Heugerveld, for the third year All-American, only one other bull of the breed ever winning that honor of three consecutive winning grand championships at the National. He was grand champion of Ohio this year, and later at Waterloo Dairy Congress.

Mr. Rasmussen of Elmwood Farm, Illinois, also carried away the premier honor on the young bulls, junior championship going to King Bessie Ormsby Pieterje, a senior yearling. Both these bulls were the champions at Waterloo.

Young Bull Classes

The herd of H. E. Robertson, York, Pa., made a strong showing in the younger bull classes. King Piebe of York 37th, never before defeated, met the Carnation bull that was senior champion of Wisconsin, and many inquired before the show as to the outcome of this clash, but when the ribbons were tied they both stood below Harvest Matador Chief, from Wisconsin State Hospital, with the Pennsylvania entry in second position. His bull showed at disadvantage because of a sore foot. Mr. Robertson also placed well in calf and senior yearling classes.

The McDonald cow, Carolyn Netherland Lady, grand champion of Illinois, Kansas, Iowa and the Dairy Congress this year, won the aged class, and later was made senior and grand champion of the show.

Another Wisconsin entry, Netherland Belle Homestead, shown by the State School for Blind, a senior yearling that had been champion of Wisconsin and Waterloo, was an outstanding leader in her class. She is a daughter of Paul Calamo Bess.

Bell Farm, Coraopolis, Pa., like Mr. Robertson, showed a strong herd, generally well placed in the money but not

at the top. One of their outstanding entries was Bell Farm Carzone, that ranked fourth in a strong class of senior yearlings, including the junior champion.

Ayrshires and Brown Swiss

WINNINGS in the Ayrshire and Brown Swiss classes were not announced till late Friday, and were not received in time for publication in this issue.

Ayrshires are not so prominent in a state like Tennessee, which now ranks third in Jerseys, next to Texas and Ohio, and this breed did not figure so largely in the dairy show, although the quality was particularly high. Old

Forge Farm, Spring Grove, Pa., was the largest exhibitor, and expected to place consistently in high position. Alta Crest Farm, Massachusetts, brought the pick of their large herds, meeting the large herds of Simmons, Wisconsin, and Page, of Kansas. The latter won the female grand championship with his cow Capaon Lass, while Alta Crest Farm showed the grand champion bull, Alta Crest Ringleader.

Brown Swiss were especially strong at the show, numbering 123 head, and nearly all the prominent exhibitors met here this season. Hull Bros., Painesville, Ohio, had one of the largest herds, with 17 head, expected to place high in the winnings as this herd is accustomed to do. The grand champion Brown Swiss cow was Silver Bell, shown by J. C. Zoller, Schenectady, N. Y. Grand champion bull of this breed was Maiden's College Boy, also exhibited by Zoller.

Miller Warns of Changes

STATING that some of the concerns buying, processing and selling milk products had their beginnings many years ago and that from small beginnings they have by normal industrial development become large and great, John D. Miller, president of the National Cooperative Milk Producers' Federation, in an address before that body at Memphis last week pointed out that a new force is entering the field. He said: "During the last four years, for the first time in the history of the dairy industry, there have appeared trusts and combinations of a far different character. They are not the result of ordinary and normal industrial development. They are arbitrary and speculative. They are not the result of years of growth. They have come over night. This movement is revolutionary and not evolutionary in character."

In some cases these combinations are engaged in buying, processing and selling milk and milk products; in other cases they are holding companies which control the voting stock of many subsidiaries. Their existence must be taken into account by producers, and regarding them Mr. Miller comes to the following conclusions:

"1. By combining in one central concern the powers theretofore split up in many different concerns, such combinations have the power to work incalculable harm to the dairy farmers of the United States.

"2. This type of combinations performs no service to farmers or consumers and serves no useful purpose.

"3. The salaries of officers, directors and employees, as well as the other expenses of the overhead combination, are an unnecessary expense on the industry.

"4. As far as such combinations have re-

sulted in stock inflations, dividends on such inflated stock issues are an unnecessary expense on the industry.

"5. All of these unnecessary expenses must be paid by farmers or by consumers or divided between them.

"6. In addition to the unnecessary expenses involved, this type of combinations through its control of the industry can exert excessive profits, all of which will be collected in lower prices to farmers.

"7. In the absence of strongly-organized effort by farmers to prevent it, such combinations can enforce the collection of these unnecessary expenses and undue profits through the exercise of their monopolistic power.

"As the danger is obvious, so is the remedy. Substantial unity of dairy farmers in one selling organization in each producing area will solve the immediate problem.

"Dairy farmers have no conflict of interest. Their interests are mutual and reciprocal. Adequate self-protection requires greater unity than heretofore.

"With a full realization of the magnitude of the task, our confidence in the intelligence and determination of the dairy farmers of the United States is such as to remove all doubt as to their position. They will accept the challenge of these great combinations and adopt all necessary measures to meet the danger involved.

"You who have never failed to measure up to the responsibilities of your position are now called upon to mobilize all available forces for another struggle with a powerful and apparently strongly-entrenched interest.

"We use the word 'apparently' advisedly because their strength is more apparent than real. They are highly vulnerable."

Warning to Hunters

THE Izaak Walton League is constantly striving to improve outdoor conditions, to increase beneficial wild life, and to make all America a more attractive and enjoyable outdoor land. Seth E. Gordon, Conservation Director of the League, offers the following suggestions as a code of hunting season ethics:

1. A human life is worth more than all the game in America—see clearly before shooting.
2. Carelessness with firearms is criminal—play safe and avoid accidents.
3. Healthful recreation and the thrill of the chase are a true sportsman's prime objectives always.
4. Observance of the law and eradication of the game hog are responsibilities no sportsman can evade.
5. A few fools with matches kill more game than many shot-guns—prevent fires.
6. Only vandals destroy farmers' fences, injure their stock or disregard their wishes.
7. Real sportsmen never try their skill about farmyards, pastures and on trespass signs.
8. Saving ample seed stock, and feeding it during the winter-time, will perpetuate the sport.
9. A clear conscience at the end of the trip and an invitation to come again beats a full bag.

The Izaak Walton League believes that clean sportsmanship, an even break for both the hunter and the hunted, constant vigilance to prevent accidents, and a square deal for the landowner, are matters which cannot be stressed too carefully. America needs more real sportsmen pulling together in a common cause. We need less of the "hoodlum" element.

The MARKET PLACE

By W. R. WHITACRE

I WOULD like to have one dollar for each time I have heard that the trouble with farming is that the grower's produce must be handled too many times before it reaches the consumer, and that the solution is to eliminate the middle man.

It is such an old story that I hesitate to bring it up again but a recent discussion brought out some points that are worth while. Before we plan to eliminate some one from the process of marketing it is well to determine just what service he performs.

Consider the commission man dealing in fruits and vegetables. Generally the best of them charge a ten per cent commission. In other words they get ten cents out of every dollar that you produce brings. There are some nearby growers who sell as high as \$25,000 to \$50,000 worth of produce through commission stores each year, so it is easy to see how that ten per cent can add up.

A High Overhead

The commission man furnishes a store which in Philadelphia rents for around \$200 to \$500 per month. He supplies a sales force which even in the smallest stores will consist of two men. These men are paid from \$30 to \$50 per week and in some cases more depending on their ability. Men to unload and load add a sizeable item and in most cases there is a bookkeeper. The total overhead is heavy and the commission man must sell enough to cover this overhead and make a profit. Another point to consider is that the bulk of the business is during about five months when the nearby sections are shipping heavily. Receipts drop off sharply after the first killing frost but the overhead continues. Most of the dealers will buy southern produce and resell it from their store to help cut down the overhead.

The farmer receives the services of this organization for his ten per cent. Experienced men in immediate contact with the wholesale market work to get the most for his product. The more they get the more they receive. If they cannot keep their shippers satisfied they will ship elsewhere and it is to their advantage to handle as large a volume of produce as possible. The commission merchant handling produce for two or three dozen farmers can handle it more economically and to better advantage than the farmer could handle it. In this way he performs a real service and it would not seem that he should be eliminated.

Competition in All Business

There is one complaint that seems to have a certain amount of foundation. That is that there are too many commission men, but on the other hand there are too many farmers, lawyers, doctors and writers. The elimination of the "too many" can hardly be brought about by legislation or official action. In the main it is a natural process called the survival of the fittest.

There is one practice that does not contribute much to either farmer or consumer in my opinion. For instance in Philadelphia there are a number of small dealers who are working on "a shoestring". They go out in the market looking for anything that they can buy and then resell at a profit. They will find some commission man who does not know his market very well and will buy fifty baskets of corn at 50c a basket. They cart it down the street a few doors and there work it out a few bushels at a time for \$1.25.

Farmer's Business Letter

Changes Taking Place

IN the methods of business devoted to the processing and distribution of products of the farm important changes of a fundamental nature are taking place, and their ultimate effect is a matter of much conjecture among those who make a study of developments likely to have some significance from the standpoint of the farmer.

The livestock industry is particularly concerned in these changes at this time. Among the important changes are the following:

Increase in the direct buying of livestock, particularly hogs. It is argued by those opposed to this practice that it gives packers the upper hand in such purchases as they make on the open market, by putting them in an independent position with relation to offerings on the market and reducing buying competition.

Centralization of the packing business, through mergers and purchases, concentrating buying power.

The marked tendency toward elimination of the hog speculator on some of the large markets, removing competition the packer once had.

The concentration of buying power through the rapid increase in number of units of some of the big chain store systems.

What all this may be leading to is a question no one seems ready to answer. Confidence that it will come out all right in the end, on the theory that whatever works for economy in the handling of foods will prevail, is not difficult to find. But there are those who fear that in the transition that is evidently taking place there may be times when the possession of power will lead to its abuse, with the farmer the loser; also that it may result in an extension of government regulation and supervision in the food industry, which is not regarded as desirable.

Jewish Beef Boycott

The cattle market was \$1 to \$1.25 lower this week, due in part to a boycott on Kosher beef that developed in New York City late in the week, the threat of it earlier causing the cancellation of some buying orders. The boycott, on strike as it is called, apparently originated with the retailers as a price protest, it being reported that they were asked to pay three to four cents a pound more for the forequarters than the packer could secure from hindquarters of the same carcasses. (Only forequarters are Koshered for the Jewish trade.) It is predicted that the strike will not last long, but it has already had a serious effect on the market.

Top heavy cattle sold at \$17.90 this week against \$18.25 last week, and yearlings \$17.50 against \$18.10. Bulk of steer sales this week were at \$12.75 to \$16.50 against \$13.50 to \$17 last week and \$11.40 to \$16.25 the same week last year. The average price this week is figured at \$14.60 against \$13.85 for the same week a year ago. For October so far receipts of cattle have total 158,000 against 180,000 for the same time last year.

A pretty good run of westerns came in again this week, but according to those in touch with shippers the number offered will soon show a sharp shrinkage. Stockers and feeders were about 50 cents lower, mostly on the top grades, but demand was fairly good at the decline, many figuring it would be a good time to lay in a supply. Most of the week's business in the stocker and feeder alloys was done at \$10.25 to \$11.75, with comparatively few well fleshed steers at \$12 and up.

Hogs Again Lower

The hog market got another jolt this week, with prices off 50 to 75 cents. It was another big week in marketing. The total at eleven points was 497,000 head, which compares with 459,000 head last week, 449,000 the same week last year, and 573,000 the average for the past five years. Average weight is holding up, 244 pounds this week, comparing with 240 the five-year average for the week. Average price for the week at \$9.70 compares with \$9.20 last week, and \$10.90 the same week last year.

The trade sees no prospect of price advances in the near future.

Lambs on Feed

With a fairly liberal run of sheep and lambs, the latter were steady to 25 cents lower, with top \$13.90, and average \$13.10.

the latter figure comparing to \$12.95 last week. The run of western lambs dropped off this week, 280 carloads being the smallest number here since the week of September 8.

A government report issued this week indicated "an increase in the number of lambs to be fed in the Corn Belt states this fall and winter above the number fed last year, but a considerable decrease in the number to be fed in the western states. While the situation by October 1 had not sufficiently developed to indicate with certainty whether total feeding this year in all areas would be more or less than last year it seems probable that there will be quite a increase.

"Shipments of feeding lambs passing through markets into the eleven Corn Belt states for the three months July to September this year were about 17 per cent larger than for this period last year and 12 per cent larger than the five-year average for the period, being exceeded only by shipments in 1926. Available information as to shipments direct to Corn Belt states feed lots, and not passing through public stockyards points to some increase in this movement this year compared to last in all those states except Nebraska. With present indications for a considerable decrease in feeding in the Scottsbluff and Central Platte Valley sections of Nebraska the direct shipments into that state will probably be smaller than last year, although a considerable increase in feeding in the eastern part of the state is expected."

"The situation is just the reverse of that of last year, when feeding was heavy in western states and light in the Corn Belt.

Storage Stocks

During September lard in storage in the United States decreased 51,078,000 pounds and pork, 296,569,000 pounds. Lard, at 126 million pounds on October 1, compares with 90 million pounds, the five-year October 1 average, and 118 million, the amount on hand October 1 last year. Pork, at 515 million pounds, compares with 534 million pounds, the October 1 five-year average, and 600 million pounds on hand on October 1 last year.

The October 1 report shows less butter on hand than a year ago, about the same amount of poultry, and more eggs and cheese.

The figures, as a whole, indicate only moderate storage stocks, and since large marketings of animals and animal products are not expected may be regarded as quite favorable from the standpoint of the producer.

Grain Trade

There is no material change in the wheat situation. The market is too well supplied with bear arguments for price gains of any moment at this time. For instance: "Exports of wheat from the United States since July 1 are running smaller than in recent years and have been at the rate of 180,000,000 for the entire year, whereas we have a total surplus of at least 250,000,000." Every price factor is on the low side, and until there is some change in the situation, some development that at this time cannot be foreseen, there apparently is little hope of price improvement. Rains this week were general over the winter wheat territory, and in some places it was much needed.

Some new corn is moving to market and grading well. Cash corn showed gains during the week, the immediate supply of the grain being light, but the trade expects big supplies of corn a little later. Reports are current that farmers are disposed to hold, but crib room is lacking on a great many corn belt farms.

Marketing Soy Beans

Receipts of soy beans in Peoria, Illinois, on one day this week surpassed those of new corn more than 2 to 1, and exceeded the combined receipts of both old and new corn. There were 23 carloads of soy beans received, nine carloads of new corn and eight carloads of old corn.

The soy beans were received on contract by the American Milling Co., a local milling concern, which last spring in conjunction with two other concerns contracted with farmers of Illinois for 1,000,000 bushels of soy beans on a guaranteed minimum price of \$1.30 per bushel for beans grading No. 2. WATSON. Chicago, October 20, 1928.

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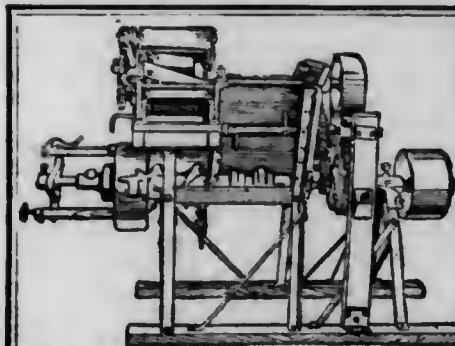
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You'd better be thinking of a new overcoat this year. The lines have changed so much that last year's coat looks out-of-date. Study the lapels on the double-breasted style at the left, above. Distinctly different from former models, isn't it? And the single-breasted box-overcoat at the right—has a smartness and snap that is new! Some mighty fine fabrics in these carefully tailored overcoats. You'll have no trouble finding a pleasing pattern and color in the many coats shown you at a J. C. Penney Company store. And you can

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In the center, is a conservative style, for the solid citizen. Notice that though plain it has gentlemanly lines and looks distinctive.

On the right, above, is a suit with peak lapels for the young man;—a suit with individuality. Some suits are priced \$19.75, extra pants \$4.98; some are \$24.75, extra pants \$5.90; others, for the younger chap, are \$14.75, extra pants \$3.98 and \$16.75, extra pants, \$4.98.

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Farm Facts and Fancies

By ALVA AGEE

By Common Consent

MY neighbor has an orange tree near the street border of the open lawn, and children of the neighborhood pass almost in touch of the fruit as it hangs ripe on the branches for months. No one, so far as I know, ever takes a fruit from the tree. Others have a similar experience. We have a guava tree whose branches reach above the alley fence. Now, some may think that it is not quite so bad to take, now and then, fruit growing along an alley as it is on a front lawn, but while children use the paved alley for a playground, our



loss is little or nothing.

Another item in the locally accepted code is the safety of hose for watering lawns, and of the nozzles that one buys because a new device, used by a neighbor, always seems more effective than what one has—and rarely is so. They are left over night where last used, if one is careless, and no one molests them. All manner of folks, I should say, may be passing close by after dark, and stealing of this sort is not done. Of course this is a dry country, and a hose is a sort of life-line, but that doesn't exactly account for the situation.

Honesty is somewhat a matter of convention, as many a pretty good person knows in the case of umbrellas. A horse trader can make statements and hold facts in reservation in a way not allowable to a dependable merchant. Some persons even appear to believe that it isn't particularly wrong to take another's money, provided it is not done when the other man is not looking.

Rules of the Game

It is hard to tell where absolute honesty stops and a more or less relative honesty begins. Variation in the rules of the game, when wanting another's property, is wide. If I have a farm or a house for sale, and the other man has money to invest, what facts may be suppressed to promote the sale? I remember, as a boy, the self-satisfaction of an unusually good man when telling about the sale of a poor tract of land. He seeded it to clover, got a good catch, and sold when the growth gave to the farm a most prosperous appearance. Now, no one would question the rightness of that, it may be, but I am wondering why the transaction stuck so fast in my memory. Doubtless the land did look more productive than it was in fact, just as a lady's gown, paraded before a possible buyer by a model who knows how to wear it, appears better on the model than it ever can on the buyer. We will take it for granted that no one would care to question the ethics in either case at the risk of being thought peculiar. Goods are expected to be well shown.

High Prices

It was during the presidential campaign, and the preacher quoted another as saying that his congregation was so saturated with politics, economics and kindred stuff that he could reach them only with comment on what was in their thoughts. Our preacher thought it was better to stick to his message, but he did turn aside for five minutes and, after the manner of a prophet of old, he brought a railing accusation against high prices and the part played by merchants in making the cost of living unbearably high. He found merchants charging exorbitant prices, worshipping at the shrine of material gain, shipping at the shrine of ethics he said

merely had two prices for every article, one low for his friends and one high for the transient, now he stuck to one price only—but it was the high one.

Another View

Now, it happens that I have been studying the progress of chain and mail-order houses, and think I know that the average merchant is not making much money, and may lose his chance to earn a living because a few master minds, with unlimited capital, are cheapening the distribution of supplies to us plain people. I like the cheapening, but do not like the massing of business into a few hands.

Everything is high largely because the cost of all labor going into goods has gone up. The employee in manufacturing, in transportation, everybody, gets more out of the consumer, but no fair share of the increase goes to the producer of food. High prices are not rightly shared by farmers when selling their products because they overstock the markets.

There are other causes, but this one is fundamental. The buyer has the advantage over the seller, and at the same time the nation is reclaiming more land while we now have too much in production.

Faith in Drainage

Mr. Isaiah Deffenbaugh, of Lancaster county, Ohio, writes: "Never quit preaching drainage. I am in my eighty-fourth year, strong and hearty. Yesterday, riding in an automobile, I saw hundreds of acres of table-land in our county, nearly one thousand feet above sea level, whose corn is not half a crop because of the wet summer. The land has been in use almost a hundred years, and most of the owners could have drained it. Thirty-five years ago I bought a farm, going into debt six thousand dollars, and it took me two years to drain it. During that time I did not pay the interest due. In ten years of raising corn and fattening hogs we paid off the mortgage when neighbors said it could not be done."

It is my guess that if our friend were to buy some wet land today he would begin its underdrainage regardless of his age, and all of us would want to see him get at least sixteen years of benefit from the investment. Yes, underdrainage rarely fails to pay for itself within a short time.

Moving Farms Eastward

The greater part of our population is in the eastern quarter of our country. There is advantage in being near the consumer, and that helps to compensate the owners of the thinner soils of the East. If railroads carried freight without charge land would go up in price in the West, and the eastern farmer would be harder up than ever. We take a step now and then in that direction.

Rates on some classes of western farm products were reduced by the Inter-State Commerce Commission some months ago for the simple reason that the producers could not compete with farmers farther east unless freight rates were lower. A recent decision reduces the rates on potatoes in some instances. This last reduction may have a better basis of justification—I have no facts—but it is interesting to watch the tendency to bring western land nearer to eastern markets by the simple expedient of reducing freight rates, and thus increasing the competition the eastern farmer must meet.

Dr. U. P. Hedrick, for the past twenty-three years head of the horticultural investigations at the Experiment Station at Geneva and since 1921 vice-director, was made director of the Station at a recent meeting of the board of trustees of Cornell University at Ithaca. He enters

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You can accomplish this by rinsing your hands with Listerine, as many physicians do, before each meal. Listerine, as shown above, is powerful against germs.

Use only a little Listerine for this purpose—and let it dry on

the hands. This simple act may spare you a nasty siege with a mean cold.

It is particularly important that mothers preparing food for children remember this precaution.

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Now Listerine full strength is applied to them. A stop-watch notes results. Within 15 seconds every organism in both tubes is dead, and beyond power to harm the body.

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Listerine's germicidal power, appreciate why you should gargle with Listerine at the first sign of sore throat—for sore throat, like a cold, is caused by germs.

Listerine full strength may be used with complete safety in any body cavity. Time and time again it has checked irritating conditions before they became serious. You can feel your throat improve almost immediately. If not, consult a physician. The matter is then no longer one for an antiseptic.

For your own protection use Listerine systematically through the winter months. It may spare you a long siege of illness. Lambert Pharmaceutical Company, St. Louis, Mo., U. S. A.

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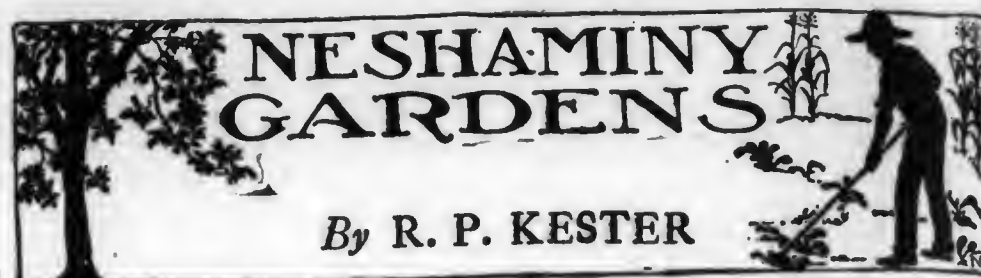
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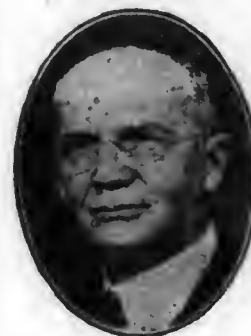
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ALMOST three weeks without rain! If my memory serves me right, that is a record for this year. All through the summer the longest dry periods were from one to three days. The three weeks of pleasant dry weather have provided an opportunity for preparing for winter and finishing up the fall work under ideal conditions. On October 17 we pulled and sent to market the most of our latest planting of sweet corn. The price is fairly good now, but the crop is not big. For some reason sweet corn has not yielded well this year, which probably explains why prices have stayed up all season. We had more ear worms in the late crop than were in all the five earlier plantings. Unless the worms have migrated westward in recent years, people west of the Alleghany Mountains do not realize how many fat, luscious worms can grow in a sweet corn ear.



Last year we had considerable trouble with bronchitis and chickenpox after the pullets were put into their winter quarters. During the latter part of November and most of December, production was cut severely by these troubles. Chickenpox is a highly contagious disease and is usually carried from place to place by visitors. This is being guarded against this year. Bronchitis and other "cold" diseases are often caused by drafts in the poultry house. Our house was built on the continuous plan, being divided into twenty-foot sections by partitions extending from the back half way toward the front, thus leaving the front half a continuous open space separated only by wire partitions. This year we put up solid partitions clear across, dividing the house into completely separate houses, each twenty feet long. This was done to prevent the long circulation of air which caused drafts before. In the front of each section are two glass windows and an eight-foot swinging frame covered with glass substitute. This is shut only on severe nights in winter. Even then, other ventilation is provided.

We found last year that cold weather interfered with the working of the automatic electric switch on our pump. We are not sure whether it was because of moisture freezing in the switch pipe, or whether the cold numbed the works of the switch. It is our plan to move the switch from the pump house to the cellar of the house where the water tank is. The motor and automatic switch are giving excellent satisfaction and keep the house supplied

with water under pressure, as well as for the poultry and many outside uses.

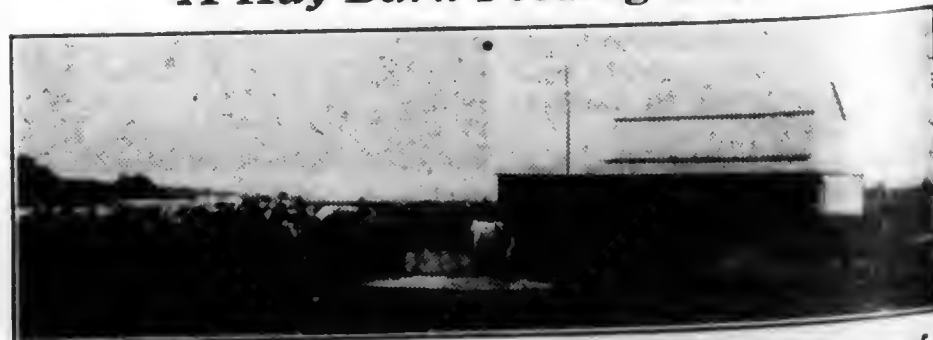
The little mounds around the peach trees which were made to contain and cover the PDB are being removed, or at least are being partially leveled below the chemical. It is not considered advisable to leave paradichlorobenzene in place longer than three or four weeks since injury to roots sometimes occurs. It is now four weeks since we applied it and we can very definitely smell the fumes when drawing it away. Apparently it has done its work in destroying any borers that may have been in the trees.

Voters are probably hearing both sides of the political contest to a greater degree this year than ever before, thanks to the radio. In former days people seldom attended political meetings of the opposite party, and it was not the custom to subscribe for opposition papers. Personally, I have schooled myself to sit and listen to a broadcast speech from the other side. I turn on the radio, sit firm in my chair, grip the chair arms and listen through—at least nearly through. Not that it makes any change in my convictions, but I get a satisfaction out of telling myself that I am open-minded and willing to listen.

We experienced quite a thrill at Neshaminy Gardens the other day in viewing the Graf Zeppelin, the great German airship, as it passed majestically over on its way to New York. To realize that it was carrying sixty people, and that it had sailed through the air for nearly 5,000 miles without stop, was enough to excite even the commonplace mind. In my younger years I read with a boy's imaginative mind Jules Verne's "Twenty Thousand Leagues Under the Sea," Edward Bellamy's "Looking Backward," and Tenyson's vision in which he saw "arrogances of the air," but I did not expect to live to see these men whom people called visionaries turn out to be prophets. Will there be anything with which to startle the next generation?

I find the little grandsons taking all these things as a matter of course. For them, they have always been. They look at the good roads with the speeding automobiles with only casual interest. They hear the radio without recalling former days, and daily view passing airplanes, minus the thrill of the generation that saw the first one. It must not be forgotten that all these things came from the brains of people called fools and impracticals by the so-called hard-headed, practical contemporaries. Is there not danger of our becoming so "practical" in this age that we shall fail to develop poets and prophets in our day? It is just as necessary for a people to have and nurture a soul as it is for an individual.

A Hay Barn Feeding Shed



The picture shows one of the hay barn feeding sheds on the farm of a Kansas dairyman. The original hay barn was remodeled by simply adding a large deep shelter, which opens on the south. The cattle live out of doors almost all the time and receive the greater part of their grain and all the rough-

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Pittsburgh, Pa., November 3, 1928

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No. 7

MORE WHEAT

THE latest estimate of the wheat crop of the northern hemisphere this year is 3,221 million bushels, an increase of 225 million bushels over last year. With all the world eating wheat, and doing it cheaper than ever before, can farmers in our older agricultural territory afford to continue it as a cash crop?

A SHOW BULL

AT the National Dairy Exposition last week Gerald Lineweaver, a student of Iowa Agricultural College, was sent to the hospital by a show bull. Fortunately he was not seriously injured, and since he is not too old to learn his experience may prove valuable. Show bulls are not usually dangerous, because they are watched and handled properly, but we can remember three attacks by bulls at fairs, two of them fatal.

DEER LICENSES

THE Pennsylvania Board of Game Commissioners announces that 70,667 of the 120,000 dog licenses were issued up to October 23. Twenty-eight counties have exhausted their quota, but licenses may still be obtained in 25 counties. Of the free licenses available to land-owners only 2,274 had been issued on October 23 and many more are ready for those who are entitled to them. Land-owners who are interested in reducing the number of does to prevent future damage should not neglect this opportunity.

LONGER AND FULLER

AS a business-man, if not as a mere man, the wool grower will be interested to know that the latest fashion report from Paris says "Skirts definitely longer and fuller." To which cheerful two-dimension announcement we may add that cloth made of wool is taking the place of fur in women's coats and that demand for wool fabrics for both male and female attire is improving, all of which is reflected in a firmer market for raw material. Considering what it has had to contend with in recent years the wool market has done pretty well. Now an era of greater consumption appears to be just ahead.

WHY TIMOTHY?

"WHY should any one want to raise timothy hay to sell?" asks Frank App in the current issue of The Nation's Business, the organ of the Chamber of Commerce of the United States. He answers his own question by showing that this "traditional" horse forage has lost its market by the decrease in the use of horses both in city and in country, and he gives his own experience in growing alfalfa hay at a cost of \$15 per ton and selling it at an average of \$26 a ton at the barn. Very few farmers should continue to grow timothy for sale, the number in proportion to the limited demand for city horse forage, a demand which is based on something more than tradition. For horses will not overeat if fed on timothy, and with hired caretakers this was a very substantial reason in the old days for using it. Some farmers must continue to grow

timothy hay even though they know the superiority of other forage. Their circumstances require forage, their land cannot be or should not be often plowed, and thus far no other crop has been found to take the place of timothy under their conditions. Some day a better forage may succeed most of it, but it must be easier to grow than alfalfa is and require little or no more labor than timothy does. We cannot all abandon timothy until we have something better to take its place—not merely better as forage but better in other respects as well.

WE ASK A FAVOR

IN the consolidation of two papers we find much less duplication of names on the subscription list than we expected. This leads us to suspect that some subscribers are getting two papers, or that some families are, the papers going to different members. In such cases, where one copy is enough for the subscriber or the family, we will consider it a favor if the labels of both papers are forwarded to us. Then we can extend a single subscription to the total period indicated by both labels. It may be a good thing for the man who is convicted on two counts to have his jail sentences run concurrently. But it is better for the subscriber to have his two subscription terms run one after the other instead of together. By favoring us with a report of any extra papers or duplication in subscriptions the subscriber is favoring himself by lengthening the term for which he is paid up.

TO LIMIT SPECULATION

THE Grain Futures Administration continues its studies of speculative trading in wheat on the Chicago Board of Trade, making public its third report on that subject last week. As before the recommendation is made that some limit be put on the total amount any trader may buy or sell, and the amount he may buy or sell in one day "for purely speculative purposes." These timid souls who shy at speculation conclude that in 1926 price swings would not have been so large if the leading speculators had been restrained from buying or selling so much. They do not know what might have happened in 1926 or any other year if their ideas had been enforced. They don't know how much wheat is bought or sold "for purely speculative purposes" or how much for hedging against future supplies or needs. We are sufficiently old-fashioned to believe and say that any man should be allowed to buy or sell, under the rules which insure fair trading, all the wheat he is financially able to care for. Which means that we favor an open market, free to follow all influences which govern prices, rather than a restricted market or one not competent to express the public's ideas of values. There is more danger of too little speculation in wheat than of too much.

STABILIZATION OF HOGS

THE President of the Institute of American Meat Packers, Oscar G. Mayer, declared in his annual address last week that the packing industry is in sympathy with the movement among hog producers to stabilize

production. Everybody wants stabilization in production, consumption and price, with all the blessings supposed to flow from such ideal conditions. But producers want stabilization at a high price and consumers want it at a low price, while Mr. Mayer does not hesitate to say that "obviously the level must be reasonable."

No harm is likely to be done by preaching and otherwise promoting stabilization in hog production, for regular production will average best for the producer; but we only fool ourselves if we imagine that such campaigns can have much effect. Hog production is going to be governed in the future as in the past, by the returns it promises to those who engage in it. The most potent stabilizer is the open market and the composite judgment of producers with respect to its future rewards. When they believe it offers a good return they are going to raise more hogs. When they think the other way they are going to sell breeding stock and raise fewer hogs. In other words they are going to continue to act naturally in view of circumstances, and all the propaganda on earth will not induce them to do anything else. We should not expect anything else and maybe we should not desire anything better than a free and prompt response to economic conditions.

A CONSPICUOUS FAILURE

THE Tariff Commission has submitted to the President two reports on the tariff on corn. One report, signed by the chairman and two members, presents information to justify an increase of 50 per cent under the flexible tariff clause. The other report, signed by the vice-chairman and two members, submits information which does not justify any increase in the tariff but suggests a reduction. The effect of all this is virtually to compel the President to assume the duties of the Commission as well as his own duty. In a conspicuous case the Commission has failed to perform the very function for which it was created and a renewal of the agitation for its abolition may be expected. As to the tariff on corn it is of much less importance than its advocates believe; but as long as the country's policy remains as it is farm products should have as much protection as any.

NO PROPHECY

IN its annual review of the sheep and lamb industry, issued last week, the Bureau of Agricultural Economics refrains from prophecy. It "hints around" at what might happen if something or other should occur, but makes no direct statement such as aroused the ire of sheepmen a few years ago and also proved to be incorrect. The Bureau reports the number of sheep and lambs the highest in sixteen years, but says the industry is still "on the upward swing of the production cycle." It finds some ground for hope in the large consumption of lamb in eastern centers and the possible expansion of its use in other parts of the country. On this depends, more than is generally appreciated, the future of our sheep industry, which has come to be very largely a lamb industry.

Both Sides of the Road Bond Question

In Favor of Bond Issue

By F. H. UTHOF

THE farmers and rural dwellers of Pennsylvania cannot afford to vote against the proposal, to be voted on Nov. 6, to increase the bonded indebtedness of this state by \$50,000,000 for additional highway construction. Every farmer, every rural dweller, every township road supervisor, knows that the mileage of mud roads in Pennsylvania is vastly greater than the mileage of improved roads. Every farmer, every rural dweller and every township road supervisor wants to have the mud roads in his community replaced with improved roads. This fact remains indisputable: A vote for the road bond issue will bring closer the day when all important mud roads of the state will be improved.

Here are a few facts that every rural voter in Pennsylvania should bear in mind, and by rural voters is meant not only those who till the soil and raise livestock, but also those who work in the city and live in the country and those of the city who maintain country establishments.

There are upward of 95,000 miles of country roads in Pennsylvania. Of this tremendous mileage 13,375 miles are on the state highway system. A great deal of the balance is mud, or pretty poorly surfaced to say the best. The 13,375

WHETHER to vote for or against the proposed bond issue of \$50,000,000 for highway construction in Pennsylvania is a question confronting citizens at the coming election. Farmers are especially interested, for they know the value of good roads and they pay a liberal share of the costs of roads. In order to give voters information on which to base their judgment on election day and to give both sides a fair hearing on the road bond issue we are printing the opposite views as expressed by F. H. Uthoff of the Pennsylvania Good Roads Association and John H. Light, Secretary of the Pennsylvania State Grange.

Opponents of the proposed bond issue have made ill-advised arguments against it. Intimations have been made that taxes will be increased if the bond issue is approved. The truth of the matter is that the highway bond issue is the only self-sustaining bond issue among the several that will be voted on November 6. It is the custom in Pennsylvania to pay the interest and sinking fund requirements on road bond issues out of motor vehicle license funds and gasoline taxes. Automobile registration increases each year and naturally these funds increase proportionately.

Opponents of the bond issue also say that the time has been reached when Pennsylvania can build all the new roads it needs out of current revenue. The fact, as was pointed out before, that less than one-tenth of the country road mileage in Pennsylvania has been improved is sufficient argument against such a theory. This argument has all the earmarks of being a selfish one. It sounds like the argument of a county or a community that has had its share of good roads voting against a proposal to give good roads to the counties and communities that have not had their share.

A \$50,000,000 bond issue will give Pennsylvania an additional 1,000 miles of good roads. Every one, and particularly every farmer, knows that it costs less to operate motor vehicles over good roads instead of poor roads. Practical and scientific tests made by the United States government and various educational bodies have conclusively proved that it is very conservative to estimate that good roads mean a saving in operating costs alone that amounts to 2½ cents a mile. On that one item alone, considering that 1,000 cars a day operate on every mile of improved road, the saving would amount to more than \$100,000,000 a year after the new highways were completed. The bonds plus interest will cost less than \$75,000,000 over a period of twenty years. They will pay for themselves many times over without even considering what good roads mean in the way of increasing property values and promoting business in general.

Some have attempted to alarm the public by pointing out that \$50,000,000 worth of road bonds will cost between \$25,000,000 and \$30,000,000 in interest over a period of twenty years. That is correct and there certainly is nothing alarming or unusual about it. A building and loan \$5,000 first mortgage on a home or farm will cost \$3,000 in interest over a period of eleven or twelve years. The proportion between \$5,000 and \$3,000 for a home or farm financing is exactly the same as between \$50,000,000 and \$30,000,000 for highway financing. Homes, farms and highways are excellent investments.

Ignoring all the foregoing discussion, the bond issue amendment (Continued on page 14.)



During the last sixteen years this ancient chariot has traveled up and down New England highways, thereby wearing out a lot of roads. However, advocates of better country roads maintain that bad roads soon make junk out of a lot of good automobiles.

For or Against Good Roads?

Opposed to Road Bonds

By JOHN H. LIGHT

THE proposed amendments to appear on the ballot at the November election deserve the careful scrutiny and consideration of every voter in the state in order to determine their merits. It should be noted that in every Presidential election only 50 per cent of the electors vote, and most of the time less than that percentage. This neglect and the failure of a large majority of those who exercise their franchise to vote on amendments should urge thinking men to stimulate voters to vote intelligently on the bond issues that involve the creation of a huge indebtedness of the commonwealth.

The bond issues to be voted on at the coming election must be divided into two classes. First, those issues in which the purposes sought will not outlive the life of the bonds and therefore should not be approved. To do otherwise is to tax unborn children for things which they cannot use or enjoy, thus placing a burden on posterity which we ourselves refuse to shoulder. Second, those issues where benefits sought will accrue to future generations and therefore may well be encouraged.

The \$50,000,000 bond issue for highways naturally falls in the first class and if there were no other reason than unsound business the proposal should be defeated. The friends of the amendment advertise the fact that 1,300 miles of the 8,800 miles of improved roads on our highway system are in need of replacement, thereby admitting that roads built twelve years ago must be replaced.

The approval of the bond issue will mean that on the passage of an enabling act by the state legislature and its approval by the Governor, Pennsylvania will be committed to the expenditure of \$50,000,000 on her highways at a total cost of \$81,000,000 on a 4 per cent interest charge; or in simple figures the state will expend \$1.62 for every dollar that appropriations from current funds would provide. Contrary to statements by proponents of the measure, there is ample evidence and authority that such appropriations can be made from current funds. It should be noted in this connection that the balance in the general fund of the state treasury has grown from \$3,300,572 on June 1, 1924, to more than \$41,000,000 on July 1, 1928.

It must also be borne in mind that the revenue from the present three cent gasoline tax will amount to \$21,000,000 in 1928 and the income from motor vehicle registrations will be \$29,000,000. In addition there is a federal appropriation amounting to \$3,500,000 and with other available sources the 1928 revenue will be close to \$60,000,000. This total will allow the Highway Department to build roads at a rapid rate if the money is used according to the understanding that was held at the time the motor license fees and the tax on gasoline were imposed for road purposes.

Many farmers and other residents living in rural Pennsylvania are led to believe that the approval and passage of this bond issue must consider that the amount of \$100,000,000 for which bonds have already been issued was spent almost in its entirety on the primary and secondary systems of the state. But it is argued that these systems are well advanced and work on highways can now be extended; but in the same breath the advocates of the issue tell us that 1,300 miles of our improved system are in urgent need of replacement and 5,000 miles remain to be built. What is really meant is, that they are bidding for the vote of the farm population for the bond issue.

Besides, we have come to the time when primary highways are to be widened anywhere from 60 to 100 feet depending on location, according to blue prints on file in public offices in various counties, and while the problem of electric lighting has not yet been advanced, this too will be an issue before many years elapse. We are prone to believe that unless the Highway Department can see its way clear to abandon its activities on the great thoroughfares there does not seem to be much hope for a different distribution of bond money in the future than has been made in the past.

Our argument against this bond issue is not an argument against good roads, and in this day and age it is important that every highway in the state be made passable for motor traffic at any time of the year, but the remedy does not lie in bonding the state for \$50,000,000 or even several times that sum.

The burden to our townships and counties has become too heavy, for roads are no longer a local problem but the traffic has become county, state and interstate, and remedial legislation looking to the construction of roads and the maintenance thereof must sooner or later be passed by our General Assembly. A larger appropriation of reward money for townships, an increase in the gasoline tax with an exemption for gasoline used in stationary engines and tractors and a more economical administration of township road supervision are the elements that enter into getting rural Pennsylvania out of the mud and we hope to see the day when the rural dweller will not be required to pay taxes to build local roads that he scarcely ever uses and that are continually destroyed by other than local traffic. (Continued on page 14.)

Eastern Farm Comments

By MILES HORST

FOR three years the Pennsylvania Experiment Station has been conducting tests on nineteen leading varieties of oats grown in the state to determine their yielding properties. The average yields per acre of the seven best varieties during the three years are as follows: Cornelian, 69.5 bu.; Patterson, 69.4 bu.; Victory, 69.4 bu.; Crown, 68.8 bu.; Comewell, 67.1 bu.; Wasa, 66.2 bu.; and Standwell, 65.7 bu.

THE fifth annual Horticultural Week at the Pennsylvania State College will be held this year November 26-28. There will be three programs, fruit growing, vegetable gardening and ornamental horticulture. As in previous years there will be no set speeches, but members of the College staff will lead the discussions; the growers themselves have the floor.

NORTH CAROLINA is the first state to have completed the tuberculin test of all its cattle. All of its counties have been declared by the federal government to be modified accredited counties, which means that bovine tuberculosis throughout the state has been reduced to less than one-half of one per cent. This is not only an achievement in itself but a boost to the state's entire livestock industry. It will be the foundation of a better breeding program. It will put a premium on the sales of all slaughter animals. It will be an effective argument in the establishment of new markets for its butter and milk.

HERE are some facts taken from Adams county, Pa., which will explode some of the pessimistic statements we occasionally hear that unless so and so is done to agriculture the farmers of this country will be driven to peasantry. Without increasing the acres of farm land, the county today produces twice as much wheat, three times as much corn and twice as many potatoes as it did eighty years ago. During the same period a fruit industry has been built up bringing \$700,000 annually into the county. While the period has seen the number of cows doubled it has witnessed the milk produced in the county multiply five times. The chickens too are producing five times the amount of eggs that were produced 80 years ago. All of this development has made the many fine farm homes, of which the county truly can boast, possible.

THE laboratories of the Pennsylvania Bureau of Animal Industry, located on the west shore of the Susquehanna river opposite Harrisburg, were formally opened last week during the annual meeting of the Pennsylvania Veterinary-Medical Association held in the building housing these laboratories. They were laid out, constructed and equipped during the past year and are modern in every sense of the word. It is here that all the tests on animal diseases conducted by the Bureau are made. Last year, for example, 70,000 blood tests were made to determine the presence of bacillary white diarrhea in chickens, several thousand blood tests on cattle to determine the presence of contagious abortion, tests on dogs to determine the presence of rabies, etc.

LAST week I visited the farm of H. J. Walton and Sons located near Kennett Square, Chester county, Pa. It was on this farm that an acre of potatoes was dug the previous week, the yield of which was estimated at 696 bushels on the measured acre. The potatoes were dug under the supervision of County Agent Vandegrift and in the presence of many neighbors whose critical eyes would have detected any flaws in the yield. Perhaps the biggest factor in making so high a yield was the large amount of organic matter in the soil growing these potatoes. The field, eight acres in extent, for the past fifty years was in bluegrass pasture. This gave it a heavy sod. Only limited amounts of stable manure were applied and only 600 pounds of a 4-8-7 fertilizer to the acre. A second factor in making the yield was close planting which in a favorable year like this gave him good size in spite of the close planting. The rows were 28 inches apart and the plants seven inches in the row. A thorough job of cultivation gave a field clean of weeds and the spraying was no small factor in the achievement.

MAJOR H. L. CURTIN of Centre county, Pa., has a 2,000-acre woodland farm, as he calls it, which he plans to farm rather intensively during the coming years. It is true that his only crop is trees

grown for the various uses to which timber may be put. But he has planned a regular rotation which will bring him a continuous annual revenue. The tract is now covered by a ten-year growth of soft and hard woods. Starting last year, he took a section and cut out all undesirable, crooked and crowded trees, turning the timber into mine props and paper wood for which he had a ready market. He will continue to take section after section until the tract is covered. He will then again start the same process over taking out more of the crowded and undesirable trees as well as any others that have attained lumbering size.

WHAT can we do to relieve the present potato situation—an abundant supply with consequent low prices—and how can we avoid the same condition another year, are two questions widely discussed this fall among potato growers the country over. The first question is answered by most of our growers by grading their product carefully and sending to the market only their best grade, keeping all



Another Big One

"Tiny", the Spotted Poland-China barrow shown above, weighed twelve hundred pounds last winter when the picture was taken some three months before he was three years old. At that time his measurements were: Height, 3 ft. 7 in.; length, 7 ft. 2 in.; girth, 7 ft. 10 in.; distance across the hams, 2 ft. 3 in. He was raised by Abram Baer and is the third "giant" to be produced in Washington county, Md., during the last few years. BREWER L. STOUTER.

culls at home for stock feed. In the more distant areas where prices f. o. b. drop to thirty cents or less a bushel, the crop is sent to starch factories or is used as stock feed. Our farm doctors have many other remedies, but the good judgment of our growers prevents their application.

To the second question a frequent and natural answer is, reduce the acreage and bring supply and demand more nearly into balance. But which growers and which sections shall do the reducing? Recently I received several letters from the officers of state potato growers' associations of the middle and the far West inquiring how Pennsylvania growers would feel toward a general campaign to reduce the potato acreage in this country another year. I took the matter up with a number of our growers and soon learned that they would not take kindly to such a campaign. Here was the situation as they saw it in Pennsylvania. We have 10,000,000 people in this state consuming 35,000,000 bushels of potatoes a year. This year for the first time our state potato crop has passed the 30,000,000-bushel mark. Normally it runs from 25,000,000 to 30,000,000 bushels. Few growers in this state have more than a fifteen-cent transportation charge to get their crop to the market. They have improved the quality of their potatoes and reduced their costs of production at least equal to that of their competitors. They feel they can profitably grow potatoes under these conditions year in and year out. So why relieve those sections whose distance from market with its accompanying freight charges, is making them suffer from unprofitable production? After all the growers themselves will determine what the acreage will be another year and their decision will be made on the profits that they feel can be made on the acreage they decide to plant.

MANY apple growers in Pennsylvania and nearby states sell apples direct to the housewife at farmers' markets, roadside stands or from huckster routes. I read a portion of a talk by William Garfitt, secretary of the Western Fruit Jobbers' Association, which contains an idea that seems practical. He states, "When the housewife sees a fine display of apples and asks what price they are the salesman will tell her they are so many pounds for 25c. She will in nearly every instance follow his suggestion and buy 25c worth, while if he would state how many pounds were sold for 50c or 75c she would probably take 50c worth or 75c worth. The result would be that more apples would be consumed."

One thing that I noticed when selling apples was that it was generally just about as easy to get a fair price as to sell cheap. Time after time I would be selling my apples at about \$1.50 per bushel and some farmer nearby who had just a small orchard as a side line would come along with apples of fair quality at as low as 75c. W. H. W.

New Jersey Notes

IN CONJUNCTION with the annual meeting of the New Jersey State Horticultural Society at Atlantic City, December 4 to 6, the Society is planning for its winter fruit exhibit. Few changes are being made in the premium list this year but several additional classes are being added, however, to meet the needs of current interest in both fruits and vegetables. No prizes will be offered this season for county exhibits of sweet potatoes. An innovation in the boxed vegetable displays will be a class for the best display by an individual of four different kinds of vegetables packed in boxes. The sweepstakes prize for the best exhibit of apples will be open this year for all varieties listed by the Society and a tub bushel will be required instead of the usual 16-quart basket.

THE second section of the annual farm legislative conference, as called by the New Jersey Farm Bureau and the New Jersey State Grange co-operating, will be held at Trenton on December 18. At the first section of the conference in late September the proposals of various county boards and farm organizations throughout the state were considered, each recommendation going to a regular or special committee. These committees will report at the mid-December conference and the farm organizations as a group will come to a united program on farm legislation for the coming winter.

THE recent survey among dairymen by the State Department relative to views on the tuberculin test shows very definite evidence that New Jersey dairymen are thoroughly "sold" on the test, and furthermore, that they believe the tuberculin tests have improved their economic conditions. Figures now available show that nearly 96 per cent of the 1,235 New Jersey dairymen who responded to the department questionnaire share this view, only 46 dairymen out of the lot stating that the tests proved a handicap. Furthermore, the survey showed that approval of tuberculin testing was fairly evenly widespread throughout the state, rather than an opinion of dairymen in any particular section of the state. One point of particular interest in this connection was that practically every dairymen stated that he was exercising great care in buying stock, to avoid reinfection of his herd.

THE Essex County (N. J.) Poultry Association is planning for one of the largest poultry shows in the state when it holds its annual show at Singac, N. J., November 20 to 24. Although under local supervision, the show is more than state-wide in scope and attracts exhibitors from many of the eastern states as well as New Jersey. Various special prizes have been offered this season. The showing of rabbits, pigeons and bantams annually makes it one of the biggest displays of specialty stock in the East. M. Palladino of Montclair is chairman of the Poultry Show. Chief Van Dyke of Caldwell and W. C. MacFarair of Essex Falls are superintendent and secretary respectively.

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An American Editor Abroad

Frugality and Tolerance in France

By E. S. BAYARD

THERE are at least two easy ways to go from London to Paris. One is to fly across, and thousands go that way. The other is to engage seats on the de luxe trains that run to Dover in England and from Calais to Paris in France. We went this way. It was harvest time in Northern France and the wheat looked good, though we were told that it was not a full crop. The oats looked good too, and the absence of farm houses was one of the things noted by the member of our party who was seeing France for the first time. French farmers live in villages in this part of the country.

The clover fields of Northern France, which produce a part of our own supply of seed, appeared healthy and clean. I can see no reason why clover seed grown in this climate, which in summer at least is much cooler than our own, should be inferior and I do not believe it is. Southern seed may be inferior, but this northern seed looks as good as any and should not be judged by less hardy seed any more than all of our own product should be put into one class.

A Good Feeder

At Paris we went to the same French hotel we had found satisfactory four years ago. The same head porter was on duty as at that time, and he spoke the same kind of English. I suppose we spoke the same kind of French as we did then too. I have never been able to understand why Americans who go to a foreign land stop at American hotels but they do and this miss much of the flavor of French life. French cooking was a satisfaction after many weeks of English food; but it is my conviction that this country of ours affords more variety and quality in food than any other. In the dining room we watched for the fat Frenchman who with his wife had always eaten at a certain table over against the wall. There he was but no lady was with him. He enjoys his dinners if anybody does. He eats deliberately and drinks the same way, getting the utmost out of his food and wine. After dessert and during his slow consumption of his third "demi" of wine he carefully reads his evening paper. Then he deliberately folds it, calls the dining room cat, pets her a while, heaves himself out of his chair and waddles out of the room, his benevolent face indicating peace with all mankind and plenty of the good things of life. We watched him many times and his program never varied, but we wondered what had become of his lady, who always paid for her own dinner while he paid for his.

We got a good room in this French hotel for 60 francs, running water and small bath, good beds and fine furniture. That was around \$2.40 per day

for two persons, \$1.20 each, and it is always below the prices current in London or any other English or American city. Dinners cost 25 francs, or around a dollar. The taxicabs start new with a charge of 125 centimes, or five cents in our money, and they run on an equally cheap basis. I have forgotten the rate, but one doesn't need to worry about taxicab fares in Paris—they are always low as compared with our own or British fares. The franc is stabilized on a low basis. For \$300 I got 7,632 francs at Morgan & Cie. That sounds like a lot of money, but it melts away. Is a low unit of currency conducive to economy or to extravagance? With me it appears the former, for I hesitate more about spending 125 francs than a pound or a five-dollar bill.

Probably no country is less understood by foreigners than is France. That is because so many foreigners do not see the real France. I have been told by Americans that France is "rotten" in morals. Then I knew they had been seeing things which a few corrupt individuals prepare for Americans of a certain class and fool them into thinking are typical of French life. For France is not a rotten country, morally or otherwise, but a land of hard-working, frugal and temperate people who are different from but not worse than other people.

The Price of War

France should not be judged by a few, or by the demoralization that accompanies a terrible and protracted war. Or if we are going to judge by time of war let us consider what might happen if we had sent 4,500,000 young men to their graves and had twice that many cripples on our hands during one Presidential administration. For that is what would occur in our country if it had to suffer in the same proportion to population as France did in 1914-18. We lost about 75,000 men in the Great War and plenty of coffins came home at that, though many did not return. What if we had lost four millions or more, and along with them our accumulation of capital and thousands of our homes? Maybe we should show some degree of demoralization too.

The French are frugal, and they are called stingy and miserly. No stock of wood, no crumb of bread, is wasted in France. The big and the little limbs of trees are carefully saved for fuel. But let us consider the wages of what are considered well-paid classes in our own country and compare them with French wages. A bank clerk in Paris gets 700 to 900 francs per month—\$28 to \$36—and if he draws 900 francs he is something more than a clerk. How liberal could a man be in any of our cities with such a salary? How liberal can he be in Paris? Frugality is a necessity in France and has been for



The Stubble Ground after This Outfit Looked as if It Might Pass Muster with a Critical Corn-Borer Inspector.

Friendly Talks

By Edgar L. Vincent

generations among those who must earn their way in the world.

I have said that the French are temperate—and they are in both eating and drinking. How does that accord with the statistics as to consumption of alcohol? It does not accord at all, for in France practically all the people drink wine and so swell the statistics of consumption. But drunkenness is rare in France, likewise disgraceful. I have seen only two intoxicated Frenchmen in two visits to that country, but that experience may be rather extreme. I have seen the French diluting the light beer of the country with carbonated water, and dilution of wine is common. The average Frenchman cannot afford to drink to excess and does not do it, but in the course of a year he consumes a lot of wine. He does not toss it down, however, but sips it and usually with food. It is to him what tea or coffee is to us—something more perhaps. And he shows no signs of giving up what he regards as a good and indispensable article of diet.

The French are interested in what their neighbors are doing, but not disposed to interfere with it. They thus permit things which we would not tolerate at all, for they do not consider themselves responsible for each other's morals—that is every one's own problem. There is, for instance, no law against the publication of any kind of



The picture shown here is a pure-bred Shorthorn and her twin calves, Calvin and Herbert, five days old. I have kept Shorthorns for a number of years and have found them very good cattle. If they are given good care and feed they will produce as much milk as the special dairy cow.

R. S. BORLAND.

literature or pictures—and some very evil things are printed. But they don't get so very far—possibly no farther than where they are illegal. I do not say that this policy is correct for our country or even for France, but it shows the difference in the attitude of different peoples to the same thing. Many other examples might be cited. Paris has no sky-scrapers yet and is not likely to have any. Six stories is the limit for about everything but the Eiffel tower, and the effort is to make and keep the city more beautiful than if it had a serrated skyline. New buildings are going up here and there, but an old city like Paris is much nearer a complete city than our comparatively new ones. The rivers are all walled, for instance, and all the "raw" places have been covered with something long ago and that something is of brick or stone—so that there is comparatively little change in an old city.

I noticed that the ancient church of the Auxerrois is undergoing repairs and restoration. Its bell rang for the massacre of St. Bartholomew 356 years ago, and that massacre exiled my ancestor Nicolas Bayard to Holland—his descendants to America. So I felt a sort of personal interest in the old place. In the meantime France has changed from a most intolerant land to a toler-

WE have some wonderful senses. Think of some of them. Take the sense of sight, the sense of hearing and feeling and tasting; and we are told that animals have a sense men know little about which helps them to find their way home from the most distant parts of the country.

And we prize these senses so highly that we would not part with them for the world if we could help it; and when we do lose one of them we are willing to pay a great price to get it back. We so dread to wander along in darkness. We love the smell of our roses and other flowers so dearly. And the voices of those we love sound so sweet to us that we cling to the sense which enables us to catch the sound of every word they speak to us.

And yet sometimes we seem to be quite content to let our sense of hearing grow dull on certain subjects. There was a day when life was in its morning, a voice whispered to our spirits, urging us to do things which were good and kind and true. Everywhere we went that voice followed us. It came to us when we were following the plow. The quiet of the open field brought it to us. In the silence of the night it was borne in upon us. Then we stood on life's threshold, with the door wide open, so that we might hear all these voices had for us to hear.

Youth's Ideals

You know what these voices said to you. They spoke of a day when you would take your place by Father's side and lift a part of his load. They whispered to you of ways you might take of making life easier and better for Mother. Yes, farther out the voices called you, inspiring you to be ready to strike for the cause of right always and everywhere. Ah! those were voices to which you loved to listen.

Do we hear the calling of those voices as clearly as we did in those far-off days? Or has something dimmed our ears so that we scarcely recognize them? It is so sometimes. We all realize that. With you it may be one thing; with me it may be another. It is not wise that we should dwell on or be sorry for this lack of the old-time vision which made life so cheery once.

Hope Never Dies

It is greatly worth while, however, that we should shut our ears to any deceptive or alluring voice which has for the time being smothered those earlier messages and get back the inspiration which made life then seem such a great and grand thing. We can do it. Hope never dies. The longing to do one's best cannot be killed, altogether out of the spirit. It may be chilled for a little while. Pride may choke it temporarily. The desire for money or worldly honor or the lure of pleasure may for a time lay their hands on the sweeter voices so that they seem distant and indistinct; but always if we will but open our heart's door we may gather up the notes of the old, old song; and this is what it will say to us:

"The old farm still calls you to do and to be the best you can. Its fields await your best endeavor and they will respond to your touch. There are still many things you can do to make the dear ones in the home happier. The world needs you now as it never needed you before. What if you have for the moment grown tired of the everyday round and been deceived by calls which have done nothing but cause you pain and unrest and sorrow? Shut these all out and listen again to the call to the best. It is the only call that will ever bring peace and rest and satisfaction today and tomorrow. Let's lean out our souls and listen!"

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A Trip to Franklin County

By S. W. FLETCHER

A RECENT trip through Franklin county, Pa., orchards with a party of Pennsylvania State College students confirmed the opinion that I have held for some time—that it is one of the most successful fruit counties of the state, with an exceptionally alert and progressive body of growers. The fruit industry is expanding, especially peaches, which were a profitable crop this season, with a net of \$1.50 to \$2 a bushel in car lots. The orchards are mostly in large holdings, of fifty to several hundred acres each. Many of them are owned by business men of Waynesboro and Chambersburg. There is an active County Horticultural Society, which is usually an infallible sign of progressive growers.

The Nicodemus Orchards

The first stop was at the Zullinger orchard of E. A. Nicodemus, on a rise of land in the center of the valley, near Waynesboro. He is probably the largest apple grower of the state, having 1,200 acres in various holdings in Pennsylvania, Maryland and Virginia. Mr. Nicodemus is widely known to livestock men as a successful breeder of Percherons; his apple orchards are no less creditable. The "hedge-row" system of planting was used in the older orchards, rows 80 to 120 feet apart, and trees 15 to 25 feet apart in the row. This was to facilitate working the inter-spaces in farm crops for a long period. The more recent plantings, however, are the standard distances.

On this strong limestone soil, he prefers to keep the bearing trees in permanent bluegrass sod, which is pastured with horses, except from July to October. There never has been any injury to the stock from arsenic poisoning, but care is taken not to over-spray so that the material drips on the grass. In recent years mice have become a serious problem in these sod orchards. Turning hogs in one orchard, apparently, merely drove them into an adjacent orchard.

Thins Heavily

It is the opinion of Mr. Nicodemus that many fruit growers use too much nitrogenous fertilizer, thus injuring the color and keeping quality of their fruit and favoring excess growth which must be pruned out. He applies only three or four pounds of nitrate per tree and none at all to many trees. This, however, is on a strong limestone soil. He thins more heavily than most growers, even his Yorks, often expending \$1.50 to \$2 to thin a single tree. This promotes size, color and, he thinks, more regular bearing; it also prevents breaking, making props unnecessary. His Yorks receive no scab sprays whatever, yet are apparently free of infection; this is contrary to the experience of growers in some other parts of the state.

He expressed the opinion that to be most effective, spraying for scab control must be based on spore discharge observations that are made in the grower's orchard. He proposes, therefore, to get a microscope and try to make these observations himself. A better way, probably, would be for the fruit growers of the county to employ a trained pathologist for the critical period of several weeks to work under the direction of the County Spray Service.

About twenty-five percent of the Nicodemus apples are being packed in bushel tubs this season; a few years ago all went into barrels. The barrel, however, remains the

age. He has a cheap and efficient storage—an old mill, insulated with ground cork, and the refrigeration developed by water power.

The Wertz Orchards

THE D. Maurice Wertz orchards, visited next, are on the lower slopes of South Mountain. Here the strong valley limestone soil is overlaid, a foot or more in depth, with stony loam that has come down from the mountain. The gentle slope, excellent air drainage and warm, well-drained soil make the South Mountain district one of the best fruit sections of the state. Mr. Wertz is reputed to be wealthy; the backbone of his financial success, it is said, has been his orchards. As a young man he inherited the home farm at Quincy, then completely covered with mortgage. He planted peaches. In a few years there was a peach crop that cleared off the mortgage and gave him a start. Now his Blue Mountain, Mont Alto and Quincy orchards include several hundred acres and he ships 15,000 to 30,000 barrels of apples a year.

In recent years Mr. Wertz has been turning to his first love, the peach, and the results of the current season seem to justify that faith. A hail storm last summer severely injured part of his Quincy apple orchard, so that it failed to set fruit buds for this year's crop. If the orchard had been nitrated immediately after the hail storm there might have been a fair set of buds.

Sod Rotation

Mr. Wertz is finding it to his advantage to practice what Dr. Anthony calls sod rotation—that is, to turn and renew the sod every four or five years, sowing clover and alfalfa, which are soon crowded out by bluegrass. This gets the organic matter down where it will do the most good. It also avoids the waste of nitrogen which often occurs when it is applied to an orchard that has an old, tight sod—the grass gets most of it.

There is a knotty problem in orchard economics at the Wertz packing house, which is on a siding at the Quincy orchard. The Mont Alto orchard, about three miles away, has 15,000 barrels this year. It has a good packing house, and a railroad siding, in the middle of the orchard. The Blue Mountain orchard, with several thousands of barrels, is six miles away. Should he pack each crop separately, or haul it loose to Quincy and pack there? Mr. Wertz has decided on the long haul and the central packing house. He figures that more is gained by having but one packing crew to supervise, and by being able to mix the fruit from the three orchards and so get a more uniform pack, than is lost by the long haul. Some growers might question the wisdom of hauling 15,000 barrels three miles when there is a good packing house on railroad siding in the orchard.

The Ledy Orchard

THE LEDY orchard, owned by J. H. Karns, N. H. Davidson and their associates, was found to be an excellent example of the importance of timeliness of spraying. S. H. Bear, the orchard manager, is a graduate in horticulture at Penn State College, and has had some training in plant pathology and the use of the microscope. This year he made local observations on the discharge of scab spores and timed his sprays accordingly, with great



Garden and Truck Crops

By GILBERT S. WATTS

RECENTLY a gentleman who is known as a skillful gardener called at my market and bought a number of different vegetables. He explained in an apologetic way, "I slipped up somehow in making succession plantings during July." How is your garden serving you just now?

It is customary to look forward to June as the month when many vegetables first come in and are at their best. Yet fall too may be a season of tender, succulent vegetables in prime condition. Lettuce sown July 20 is now as sweet and crisp as any I ever tasted. Spinach sown in mid-August is wonderful in quality. I am sure I never enjoyed better. Young beets are a delicacy every gardener should boast at this time of year. Carrots too.

We sowed some of both after turning under a strawberry patch at the close of the picking season. It was about July 15, I imagine, and now we are pulling beets and carrots that taste good on our own table and that we can guarantee without qualification in respect to quality when offering them for sale. Incidentally there usually is a limited trade that will pay good prices at this season for young medium-sized beets and carrots with healthy well-colored tops.

Then there are other things that the well stocked garden supplies far into the fall, endive, kale, kohlrabi, winter radishes, turnips, rutabagas, salsify, parsnips, cabbage of course, possibly cauliflower and that delicious new vegetable green sprouting broccoli of which Christmas Calabrese is the best variety.

THERE are so many varieties of lettuce and some other vegetables it is always a puzzle to know which ones to plant. The Market Garden Field Station at Waltham, Mass., recently reported on lettuce trials involving more than 70 strains. Sowings were made in March (under glass for transplanting) and on May 1, June 7 and July 25.

As an early head lettuce Creamy Heart, a new variety from California, showed great promise. As is the case with New York (the "Iceberg lettuce" of the stores) Creamy Heart did well only in cool weather and can be recommended only for the early crop. In the same trials, Unrivaled, also called Green Leaved or White Big Boston, proved very fine.

In this connection it may be of interest that out of a half dozen sorts planted here on Logan Spring Farm in late July and early August Black Seed Simpson is the only one that came through the hot weather we experienced in September and made a satisfactory crop. It is hard to sell in competition with the abundant supplies of New York now on the market, but it brings in some money and it is mighty good on the table. Incidentally New York planted at the same time was so hard hit by the heat that scarcely one plant in a hundred has made a fair head.

DO YOU know whether the land on which you plan to grow vegetables next spring needs lime? There will be little time then amidst the rush of planting to find out and profits may hinge on the answer. Before long the soil will be frozen hard. Now is the time to collect soil samples particularly from the land where spinach, lettuce, celery, onions and beets are to be grown. A convenient method is to number as many empty jelly glasses or jars as there are fields to be tested. Then about a teaspoonful of soil may be taken from each of a dozen points situated at intervals over the field, emptying each spoonful into the jar bearing the number of the field from which samples are being taken. Allow the samples to dry in the jars somewhere in the house and they are ready to be tested.



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FARM AND DAIRY

By
L. W. LIGHTY

The Changing Seasons

THE man who adjusts and adapts himself to the changes which come with the seasons finds no difficulties with the weather and temperature variations. The man who has learned to do this has valuable information. But some people never learn and often disaster overtakes them. The man with understanding will adapt this management to his domestic animals and the results will be equally pleasant and very profitable.

Why do some farmers' chickens stop laying when the cold weather arrives and not begin until the green grass comes next spring? I need not explain, because hardly a mile away is another man who gets the largest percentage of eggs while the snow covers the ground. It is a matter of adaptation and adjustment. Why is there such a great drop in milk flow, such a lessening of cans on the milk truck, when the days grow short and the ground freezes up. But at the same time the milk hauler will tell you he has patrons where there is no such a drop. This alone should convince the keeper of cows that this sudden autumn drop is not the fault of the cow but the fault of the man who cares or fails to care for her.

The Few Needs

The cow does not need or want any hothouse conditions as the weather gets colder. She must have shelter from the cold storms and the blizzards when they come. She must have provision so she can go into the dry when the cold fall rains come, but it is very much better if she is not housed close, because the cow will easily adapt herself to the changes of temperature, provided you will see to it that she has an abundance of the right kind of feed and water when she wants it. This feeding must be started before the grass gets poor or the weather gets cold and the cow will continue her normal milk flow regardless of the mercury in the thermometer.

True, when the extraordinary occurs for a day or so there is a little drop, but it is only temporary and she will be right back after a milking or two to her normal work. But do not forget we must anticipate seasonal conditions in our cow management. Forethought here pays big dividends. This is not a theory.

Pure Air for the Cow Barn

It is agreed by those who have made the most careful investigation of this matter that ideal ventilation of the stable may be had only by the use of power, a fan or other means that will force a draft in the line to remove the foul and ill-smelling air from the stable during unfavorable weather conditions.

Many dairymen have learned that the old cow stable idea is far from the best. When I was a boy the side of the straw-stack was the cow shelter, but slowly there was developed the idea that the cow needed a hothouse for her shelter, which was worse than the prior idea. Out of the straw-stack and hothouse ideas is evolving something far superior in the hands of many practical dairymen. A substantial shelter with a dry well-bedded floor, a convenient water supply and the cows at liberty to move about and go outside into the sunshine or retire into the shelter at all times except at milking time and while being fed the main ration. This eliminates a great lot of labor and gives perfect cow comfort.

Grinding the Rough Feed

The Ohio Experiment Station reports results on the grinding of alfalfa and corn stover for the cows in test work relative to grinding roughage. The cows fed on the ground roughage produced 2.1 per cent more milk and 3.7 per cent more butterfat than those fed on the unground roughage and

there was a smaller wastage in the rough feed. Experiments of this nature were reported before in these columns and those were adverse to grinding roughage, while these are seemingly favorable. One or a few trials of course will not tell the whole story. The truth is found by persistent searching only.

The Pure-bred Scrub

In these columns I, on several occasions, hit the sellers of the poor producing registered animals a severe rap for the practice, and I stand by what I said if they do not tell the buyer that the cow is a poor producer. But I had a talk with a dairyman lately who showed me the question had another side, as all questions have. He was located near a large breeder of pure-bred dairy stock, and being short of money he purchased at a low price the cows that fell below the standard set by the breeder. They were poor yielders and he bought them as such and paid accordingly. He used one of the best bulls he could find and in this way he "graded up" the pure-bred stock. He assured me the results in the second generation of progeny after a few unpromising individuals were weeded out were very gratifying. Several individuals almost reached the hundred pound mark in butterfat and the average production of the herd was almost four hundred pounds of butterfat annually. Because of his experience he

assured me that my advice of sending the "scrub" pure-bred to the block was wrong; she should be sold for what she really is at her value, and the man who hankers for pure-breds and does not have the money to invest in the high producers might build up a good herd because even in the poor individual there is potential possibility that should not be sacrificed. It is possible that this man is right or at least partly right. We well know that some of the great record-breakers did not produce their like, because some of their progeny were quite ordinary producers, and so if we find a quite poor producer she may have the blood to produce worthwhile animals. This matter of inheritance and variation is possessed of many factors, some of which are quite dark to the student of animal breeding.

The Use of Words

Words should be used to tell the truth. I realize as well as you do that professional politicians have acquired the art of using words so you can interpret them to mean one of several things, but why people who prepare articles or reports for a farm or dairy paper do that I cannot understand. Why should any one use the expression, "Profit above the cost of feed"? There is no such thing. There can be no profit until the expenses of the article or the cost of the article have been deducted. There might be some sense in the expression, "Income above the

cost of feed", but it cannot become profit until all the several items of cost have been determined and deducted and if there is anything left then it is right to call it profit. "Profit above the cost of feed" is misleading. The cost of labor, the interest and depreciation and a number of items are just as important as the cost of feed and to ignore them is an attempt of the writer to deceive himself or his readers. What kind of nonsense would it be if some one spoke of the profit on an automobile above the cost of the iron and rubber? But it would be just as sensible as the expression "Profit above the cost of feed." Seemingly there are writers who prefer obscurity rather than clarity and understanding on the matter they are writing about. Why not learn the meaning of words and use them correctly?

Sound Books Are Helps

Our young and studious friends some day will learn that wisdom and understanding do not come from books but from within, yet sound books and sound men are very helpful and we do well to avail ourselves of them in so far as opportunity allows. I recall not long ago, two score years or so, I was quite enchanted with a little book of a hundred pages, "Plant Life," by Masters, a member of the Royal Society, and a bit later by Johnson's "How Crops Grow". My "bump" of inquiry was greatly aroused and I went to the fields to ask a thousand questions of the plants themselves. I later learned that both these great men had made a number of wrong guesses and yet they taught me much and stirred me up so I learned much more in the fields than I ever could learn from books.

For Bond Issue

(Continued from page 6.)

ment resolves itself into this question: Do we want to have new roads built in Pennsylvania at the rate of 200 miles a year or less out of current revenue, or do we want to have them built at the rate of 500 to 600 miles a year, as is possible when bond issue money is available? After an analysis of the facts presented here, the average farmer and rural dweller in Pennsylvania will almost come to the opinion that the only mistake in connection with the proposed road bond amendment is that it wasn't designed for three or four times the amount that has been suggested.

The road bond issue will appear as Amendment No. 9 on the ballot that will be handed to the electors of Pennsylvania on November 6. There are other excellent amendments of the ballot, particularly those that concern State College and state welfare institutions, but any one who votes against No. 9 will be taking money out of his own pocket.

Against Bond Issue

traffie. To this end the tax on gasoline is the most just form of taxation yet devised, for the amount paid is in direct proportion to the use made of the roads.

Local government has consumed more than 52 per cent of the nation's tax bill in recent years, mostly due to improvements in roads, schools and other public improvements. The causes back of these vast expenditures were the war, the automobile, the increase in population and the changes in the wants of our people. Combined, this was the urge that threw every municipality, county and state into a rage for things that could not be paid out of current funds. Now that most municipalities have exhausted their bonding capacities and when Pennsylvania has no need for a bond issue of \$50,000,000 to spend on her highways, the voters of our state should declare themselves against the approval and thus favor the pay-as-you-go plan with the available money in our state treasury and from the established source of revenue for highway purposes.

Dairy Topics

By A. G. HUMPHREYS

SOMETIMES we get the notion that our cows can do the impossible. We expect too much of them. Some dairymen expect their cows to provide an income for the owner and the tenant at the same time. They also provide some income for the middle man, and occasionally, not often, his share of their income is bigger than either of the others.

It doesn't make any difference how many cows a farmer keeps at least half the production goes toward marketing the other half. That is, between the producer and the consumer one-half of the milk is consumed in finding and supplying a market. If we go just a step farther and cut the half in two so it can be divided between the owner and the tenant we have a fourth for each, and a fourth of the income from any herd common in districts remote from market is likely to be too small to support a family these days.

Under these conditions the owner seems to have the idea that the tenant is not giving the herd the right kind of care. The herd, seemingly, did so much better under the owner's direction. The only difference is that the income is divided. The herd may be doing as well or even better. The same thing is the matter with the farm. Not very many farms can keep an owner in town and a tenant out on the farm all at the same time. Under such conditions it takes too much brains to run the business. Too much concentration, perhaps we should say. In any event before we condemn the herd we should look closely to the conditions under which it works. It may be getting the best of care, but no herd can produce milk and find a market for it and divide the proceeds satisfactorily between its owner and the tenant at the same time taking into consideration the consumer. That is expecting too much of the cows.

Improvements

It is a pretty hard matter to stand still in any kind of business. It is so hard that our best advisers say that we cannot do it. We are either going forward or backward all the time. It does look like dairymen can come nearer standing still than some others, but maybe they only appear that way. The one who is going forward is thinking about improvements. He is going to spend a portion of the yearly income for such things as will make the effort of dairymen as little as possible. Among these things he will want equipment which runs smoothly. About the barn he will want such tools as his individual needs require. A good wheelbarrow, a scoop shovel, a fork which has five times at least, a silage fork, some kind of carrier for distributing the silage and other feed. He will sometime want a litter carrier, and perhaps a milking machine, and some kind of convenient apparatus for heating water, and some place where he can cool the milk quickly and thoroughly. Paint for the buildings and roofs is no small item in dairymen, and in spite of what some writers claim most of us feel that we need some good fences to keep the cows out of the growing crops, the orchard, the garden, and the watermelon patch.

If dairymen is our main line we will want to pay for these things out of the profits of the business. It stands to good reason that it will not do to use any of the capital. That would be going backward. So when we begin to divide up the annual income for all the things we need we find that it takes as close application of figures as in any other business, and since we are so close to it ourselves and so far away from other lines of business we think it takes closer application.

The Underslung Wheelbarrow

Some method must be used nearly every day in cleaning out the barn. Those of us who have not made enough or saved enough to invest in a litter carrier still use a wheelbarrow. We find from experience with them that those made with a metal body give better results. The liquid can be removed at the same time the solid manure is taken out and thus one trip made to serve both operations. Our local creamery installed an endless conveyor for the handling of milk cans. It is not more than twelve feet in length and is of the roller type, but it saves lifting and moving over a cement floor the cans as they come in from the farms. A little thing indeed, but a handy one which helps keep the man on the job.

In getting the milk from the cooling room or the cooling tank, whichever is used, we use an underslung wheelbarrow. So far as we know it is rather new. We have never seen it at dairy shows, and only lately have the catalogues been showing it. We have had one in use about a year and find it all that one might wish in a conveyor of its kind. Instead of the usual body on an ordinary wheelbarrow it has one board about twelve inches wide slung under the frame. The can of milk or cream has to be lifted only about six inches from the ground and it is almost impossible to upset it. The underslung board is made to hold two ten-gallon cans. The rig can be used for other purposes also. Moving feed about the barn, potatoes or apples or giving the baby a ride.

The Choked Cow

There seems to be a big apple crop this year, and we always wonder how many valuable cows will be lost as a result of choking to death on a hard apple. We have had to attend several innumerable butchering on account of animals being driven hastily through



What Else?

besides hay, silage and homegrown grains, are you going to put into your cows' feed trough this Fall and Winter? How you answer that question will decide what your milk profits will be from now till next pasture season.

A grain ration is necessary. That ration must contain the protein and other nutrients that your homegrown feeds lack. Yet it must not cost too much. The right mixture can be built on

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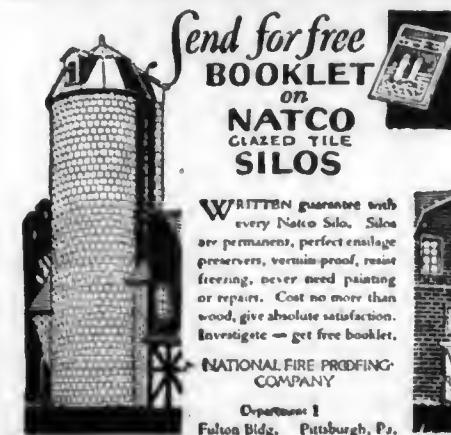
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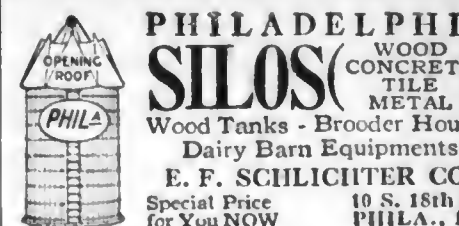
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The figures below are from the Rhode Island Herd Test Association books on the herd of V. J. De Rocha, Bristol, R. I.

Average Per Cow	1926-27	1927-28
Milk	12,201 lbs.	13,104.0 lbs.
Butter Fat	396 "	422.1 "
Cost of roughage including pasture	\$ 72.09	\$ 66.05
Grain Cost	\$ 89.48	\$112.13
Total Feed Cost	\$161.57	\$178.18
Value of Product above feed cost	\$371.13	\$398.62
AVERAGE INCREASE		
903 LBS. MILK		26.1 LBS. BUTTER FAT



THERE are two outstanding facts in this two-year record on Amco feed—the high average production per cow; and the increased milk and butter fat production in the second year. There were 19 cows in the milking herd 1926-1927, and 17 cows 1927-1928, for eight months or more.

Mr. De Rocha is working on a sound herd improvement program and making good profits at the same time. He feeds AMCO 12% FITTING RATION to dry cows and heifers; AMCO 20% DAIRY (flexible formula feed) to his milking cows; and AMCO JUNE PASTURE is used as an appetizer and tonic for the whole herd.

Amco Fitting Ration provides the right amount of protein and the minerals to bring his young and dry stock into production, ready to milk to capacity. Amco 20% Dairy (because its formula is flexible) gives the milkers the maximum amount of digestible feed per dollar invested; and Amco June Pasture makes for herd improvement, and more milk as well.

Mr. De Rocha has fed Amco open formula feeds for three years.

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apple chokes, and several times we have had valuable cows choked on apples. It used to be our job to insert a hand into the choked animal's throat and remove the apple while the mouth was held open by a homemade speculum. We do not advise such proceedings. A full grown cow can exert nearly enough force with the root of her tongue to break an arm. Just as soon as one reaches the offending apple the muscles of the throat contract and great care must be exercised or there will be a doctor bill to pay. In the absence of a veterinarian a rubber tube greased and inserted in the choked animal's throat may get the obstacle down, and again it may not. The old-fashioned method of running a buggy whip down the throat is obsolete now mainly because automobiles do not come equipped with buggy whips. The buggy whip method was about as fatal as the original object, whatever it may have been.

If the cow is eating apples and has one in her mouth do not hurry her or excite her. Give her time and she will crush the apple. Make her jump and she will choke nearly every time. If from any cause the cows get into the orchard and get to fighting part them as quietly as possible and pray. Prayer will not do the cow any good but it will keep the driver from doing anything hasty or rash. If the cow gets badly choked get the veterinarian there as soon as possible. While he comes try to force the apple down by rubbing over it on the outside. Do not try to get it up. The cow will make every effort to get it down. That is what she set her head on in the first place. Help her. The veterinarian will insert an instrument into the throat and reduce the choke much easier than it can be done without previous experience and without the instrument. Pay him and be thankful that the cow did not die.

That Pet Calf

One time a boy told an admiring friend who wanted to know how he had trained a dog so well that one must have more sense than the dog if he would make a successful dog trainer. That is only one version of that old story. Once in my life I had an idea that the same thing applied to training a calf to drink, but now I am about ready to admit that the calf must have less sense than the trainer if it ever learns anything. One recipe says that the calf should be hungry. So it should, but hunger and sense do not go hand in hand. Some calves will drink about the second or third attempt. Others will not drink at the twentieth trial. Dairy breeds seem to learn faster than beef types. Females seem to be smarter than males, and observation leads me to get up in "meetin'" and state that the same seems to apply to other species than calves. But after that fool calf grows up there is no telling what kind of a cow it will make. It all goes to show that we cannot tell anything about the future except as we guess.

Wins Trip to Memphis



The outstanding dairy calf club member in West Virginia this year is Vincent Baker, Marshall county, in the opinion of James V. Hopkins, state club leader, who recommended Vincent for the educational prize trip to the 1928 National Dairy Exposition awarded by the Blue Valley Creamery Institute for the best boy or girl dairy calf club member in the state. Vincent is 17 years old and has been in 4-H club work three years.

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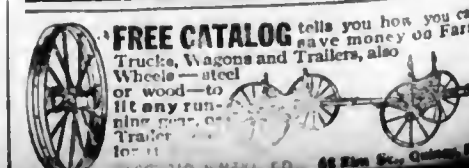


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How to Cure Pork

By SUE WYANT

THE pigs that go to market every year from small farms help to swell the income of farmers like ourselves who do general farming. We keep one sow. We try to have her farrow in early spring and early fall. When our corn crop is good and we have plenty of skim milk our pigs that go to market pay our taxes. But what about the pigs that stay home? A few farmers send all their pigs to market and do not keep any at home for their own use. Others keep enough for winter use. During the hard working summer days these farmers do without meat or buy from butchers at a much higher price than they sold their pigs.

We have found a way to have pork all the year round. We like a young pig about six or seven months old for meat. In November we butcher one for winter use, but as we are a family of only two now we can most of the sausage and liverwurst and still have the hams. In February we butcher another. This keeps us well supplied with pork till fall.

Smoked Meats

The shoulders, hams and sides of this pig we put in salt brine, strong enough to carry an egg, and leave it two or three weeks. Then we take it out and drain, smear over with molasses and dust well with pepper. We then hang it in the smokehouse and smoke eight or ten days with green hickory wood. After it is smoked we dust well with borax and tie secure in flour sacks to keep everything out and hang it in a cool dry place. This gives us a supply of smoked meats.

We prefer the delicious flavor of these meats smoked with green hickory, but they may be kept fresh all the year round. To keep fresh the shoulders, hams and sides may be sliced, trimmed and sealed. The ham browned on both sides and packed in jars with pan gravy, the sides packed in jars cold and covered with boiling water and both processed two and one-half hours in boiling water.

The surplus fat is cut into small pieces and rendered out in the oven. By pouring the lard into jars and sealing them we are sure of pure lard at all times. But if our jars are scarce or we do not have a large quantity of lard we pour it into bright clean lard pails or a crock and store away. If at any time this becomes rancid it may be made sweet again by heating a skillet, put in a small amount of lard and a small raw potato in it. The potato is taken out when it becomes brown and the lard is good again.

Canned Sausage

The sausage meat we grind and mix to suit our taste with salt, pepper and ginger. Sage may be used, but we like a little ginger as it makes the sausage easier to digest. We then make it into little cakes and fry till about half done. The cakes are packed in glass jars and covered with melted fat. If one uses screw-top jars the meat need not be covered but a cup of fat will do. Seal tight and turn upside down and the fat will go to the top of the can.

To open, after taking off the lid and ridger put the jar in the oven till all the fat is melted. Be careful when taking jar out of oven not to break it, as sudden change in temperature will crack or break the glass. Pour off the fat and the sausage will come out easily. We like these cakes arranged in a pan and simply browned in the oven or fried in the half of a corned apple and baked. Baked with macaroni and tomato they are fine.

The head meat and heart and liver we cook well in cold water till all the blood is out. Then we cook it and grind it into liverwurst, mixing with salt, pepper and ginger. Heat this thoroughly in a skillet but do not fry hard, and pack in jars leaving an inch at the top for about one-half cup

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WHEN it's as black as the Old Harry outside and you have to watch every move, it's flashlight time for the modern farmer. He has an Eveready handy to light his way around. He knows there's always a bright beam ready at his finger-tip to clear the path, to save a bad fall, to find a tool—to help out everywhere with brighter and SAFER light. The flashlight habit's not only a safeguard against fire—it's a common-sense way to have helpful light where and when you want it.

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Your "Farm Service" Hardware Men



Your Farm Service HARDWARE STORES

of fat. We never process sausage or wurst as the fat acts as a preserving agent. Liverwurst is nice with all kinds of griddle cakes and it makes good hash fried with potatoes and onions. Mixed with chopped pickle and mayonnaise it makes fine sandwich filling.

The feet and hocks are cleaned and put on in water to cover to cook till the meat falls from the bones. All the bones are taken out and the meat is cut into small pieces. One tablespoonful of mixed spices and one-half cupful of vinegar is added. The whole is simmered twenty minutes and then packed in jars and processed one and one-half hours in boiling water. To open heat in oven, pour out and remold. This

makes a delicious cold meat dish. The pork chops we season and brown on both sides and pack in jars—five or six to the quart jar—with pan gravy and process two and one-half hours in boiling water. No one need be told how good baked pork chops are.

The ribs we cut in sections, two or three to the section, or roll to fit the can and pack in jars with seasoning added and cover with boiling water and process three hours in boiling water. If one has a steam pressure cooker it would only take about half as long to process. Canned spareribs served with sauerkraut and dumplings are tantalizing to smell and better to eat.

SUE WYANT.



Bradford County Shropshires

This flock of high-grade Shropshire sheep belongs to Mr. F. M. Mosier, Bradford county, Pa. The buildings shown in the background are on the Mosier farm. One hundred and five ewes this season raised one hundred and forty-two lambs.

H. D.

Ile-de-France Sheep

By J. F. WALKER

Saturday was spent in studying the Ile-de-France breed, a comparatively new breed in France, formed by crossing the Dishley Merino with the mutton type Rambouillet. The term Merino as applied to the Dishley is really a misnomer, as the old Dishley bears little resemblance to the Merino, being nearer to the English long wool breeds in conformation and fleece quality.

We were obliged to take this trip by motor and our escort for the day was the Inspector of Flocks, a young man of 23, very intelligent but who had only a limited knowledge of English. However, we managed to make out very well through the combined use of English, French, gestures and a dictionary.

The Road Through Meaux

Our road took us out through Meaux, where an engagement took place early in the war, and we were told 160,000 troops had been transported from Paris to Meaux over this road in one night by calling the Paris taxicabs into service. All the way was marked by monuments commemorating battles and at one we saw a huge pile of sugar beets, while all around stood teams of oxen and horses while the workmen enjoyed a mid-morning lunch. This is a very fertile region devoted largely to sugar beets. Some oats is raised and a lot of wheat. These crops are stored in huge sheds open at the sides or stacked in large stacks and thatched. The heads of the wheat are threshed out and the straw, left in bundles, is used for hay. We met many loads of straw coming to Paris. Our guide told us they hauled about 8,000 pounds to a load and generally two horses, sometimes hitched abreast, sometimes tandem, were able to haul it. No mares were seen on the road or on the streets of the cities

and the majority of the work horses were stallions.

A few tractors are to be seen in the fields, but the most of the heavy field work is done by oxen in teams of four or eight. These oxen were either of the white Charolais or Neversais or the gray Gascony breeds. The former are thicker set and better beef animals, while the latter are great upstanding creatures, heavy in bone and somewhat angular in build. They can get over the ground better than the Charolais but do not make such good beef. When an ox gets to the place where his age is telling on his work he is fattened and slaughtered, going to market at about 2,000 pounds live weight. The yokes are fitted around the horns of the animals, so the ox does a great deal of head work in his career, more than many of the drivers if their expression, or lack of it, is any index.

The road was very fair and lined on both sides with rows of trees, all of them having moss on their trunks and many full of bunches of mistletoe. An ideal road to travel slowly with an attractive female companion. I think it was my wife who first noticed this feature of the landscape.

The "Ouis" Won Out

Our first stop was at the farm of Monsieur Dhucque where we were introduced as "Monsieur and Madame Weickie", which was about as close as we got to a correct pronunciation of their names, so it was an even break. M. Dhucque has some 900 head of Ile-de-France sheep in his "troupeau" and we started on a tour of inspection at once. This is one of the best flocks in France and is kept in fine condition. We inspected the ordinary sheep first and later had a look at the show flock, now being prepared for the March and April shows. There were some won-

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deral specimens here and as I had learned the French method of application, which by the way is applied to everything from eating good soup to kissing a pretty girl, by sharply drawing the breath in with a hissing sound, smacking the lips to a slowly exhaled "ah", rolling the eyes and making a gesture of despair with the hands, I got along fine. For each "ah" there was an encore of "Oui, oui" and it developed into a contest with the "ouis" in the lead, though I still think that for an amateur I put up a pretty creditable performance.

The wool sheep are left with a patch of shorn on the left side to show the length of staple at a year's growth, which gives them an appearance of having a rosette pinned on their ribs.

In type they are nearer the Southdown than any of our breeds but much larger and when I managed "le gros Southdown" (a big Southdown), the "ouis" came from all sides in a chorus. I had made a bull's eye.

A Gentleman Farmer

M. Dhucque is a young man and a very fine specimen of the French farmer at his best. A college man, he is termed "gentleman farmer," while one not so fortunate is called "a peasant farmer." His desire to talk sheep with me was only equalled by mine to talk with him and occasionally we would both forget and start in, each in his own tongue, only to stop and laugh. He did manage to say, "Monsieur Weickie for demonstrating mouton has been most amusing and is of the best interpreter of bon sheep," which my companion said meant that I had been very interesting and could select the best animals. He was polite enough to include the other member of the firm in his statement. He also said the same as had been told me the day before, and again later in the day at another flock, that I was the first American who had ever visited his place to look at the sheep and I left with the impression that some breeders might learn something about sheep breeding from the French.

Our dinner at this home and the courtesy and refinement apparent on all sides, from the deference to the mother, father and mother-in-law down to the care of two beautiful little girls, the culture which was manifest even though conversation was at a minimum, are worthy of a separate story. We left feeling that so long as France continues to produce such people its future is assured.

A Social Distinction

A rather amusing thing occurred on our arrival at this home. M. Dhucque is a "gentleman farmer" and as such has a "jeune homme" to maintain. On entering the home we were seated in a parlor and were received only by M. Dhucque. Our interpreter seized the opportunity and presently said: "And in America are you a gentleman farmer?" I replied "Oui" and we were promptly invited to enter the parlor, where we met the ladies and other members of the family.

I am not quite certain what constitutes a gentleman farmer but I am positive if I hadn't acknowledged that I was one we never would have been admitted into the best room or received as an equal by the family.

In the afternoon we visited the farm of M. Boisseau, who is a "peasant farmer" and here again we met the same courtesy and evidences of an appreciation of the better things of life. M. Boisseau is as keen a business man and as good a farmer as you will find wherever you go. He has a herd of some 200 Charolais cattle and some good Belgian horses while his son near by runs 900 head of Ile-de-France sheep and keeps Holstein cattle. We went through the cattle barns ending in the feed barn where the old cows, oxen and inferior specimens were being fattened for market. When they reached 1,800 to 2,000 pounds live weight they were sold and replaced with others. The sheep were in type much like those seen earlier in the day.

SWINE

REGISTERED BERKSHIRE SOWS.—Entire herd of 15 must be sold at once, account of other business. 10 sows with pigs at side, rest bred. Write for terms. I. B. HUDSON, Bishop, Maryland

LARGE BERKSHIRES.—Service Boars, Glits bred and unbred. Pigs unrelated. The very best. GEO. W. DOZER, South Zanesville, Ohio

REGISTERED BERKSHIRES Superior Breeding Stock. Pigs, Glits, Welf Creek Farm, R. 2, Slippery Rock, Pa.

PIGS Fine, Splendid, Tropy, Thrifty Berkshires. 10 sows with pigs at side, rest bred. Write for terms. W. F. McFARLAN, Furness, Pa.

Chester Whites Six months boars and sows. Good ones. MILL HALL, Pa.

CHESHIRE The pig for the family table. Unsurpassed in quality. MORNINGSIDE FARM, Sylvania, Pa.

Chester White Pigs Properly mated, for breeding purposes. R. L. MUNCE, Canonsburg, Pa.

CHESTER WHITES.—Pedigreed big type Cham blood, all ages, 13 sows farrowed 151 pigs, priced low, must please. C. E. Cassel, Hershey, Pa.

75 CHESTER WHITE PIGS.—Grade pigs, 6 weeks old. Pedigreed \$10.00 each. STANLEY SMITH, Lewisburg, Pa.

Duroc Jerseys Service males of the large prolific type, fall pigs either sex. J. J. McLaughlin, 205 Kroger Bldg., Lancaster, O.

Big Spotted Poland-Chinas Choice spring boars and glits, pigs all ages. BOYD HAMMAN, Shiloh, Ohio

Registered Big Bred Poland-China pigs and glits for sale. Bloodlines Designer, Liberator and Bondman. E. H. Williams, Marlinton, W. Va.

Poland-Chinas Spring glits and boars ready for service. Trilow sows and fall pigs. Ralph Campbell, Ligonier, Pa.

Reg. Spotted Poland-Chinas. Spring glits and boars ready for service. Fall pigs at 8 wks. age. \$10.50 each. A. M. Kennel, R. 2, Honey Brook, Pa.

BIG TYPE POLAND-CHINA spring boars. Good ones. Prolific, growth and length. Registered. Write wants. C. G. POWELL, Ada, Ohio

Bred glits, spring pigs, 10 wks. old. C. G. Fisher, Collinsville, O.

SHEEP

1500 Breeding Ewes for sale in car lots at Wholesale Prices. 1,000 Ewes, 1 to 4 years old. Also 500 choice, large Michigan Delaine Ewes, to 4 years old.

So. Rockwood, Mich. 20 mi. so. of Detroit, Mich.

Registered Dorset and Shropshire rams, \$25 and up. Shropshire ewes, bred. Pedigreed. Collier popple. Myron K. Leffer, De Graaf, Ohio

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Saves Half Usual Cost
SEND NO MONEY 30 DAYS' TRIAL

I offer you this chance to feed your stock with WY-MIX, my concentrated, medicated, mineralized salt, on 30 days' trial before you pay me a cent for it. I want you to see and know, from actual use on your farm stock, without risking a single penny, that WY-MIX is the best and most satisfactory tonic, appetizer and conditioner for hogs, sheep, goats, horses or cattle, ever offered. I want to PROVE to you also, before you pay, that it costs you only HALF as much as other conditioners, and saves you all the bother of catching and dosing each animal. They doctor themselves with WY-MIX (formerly called WORMIX).



SIDNEY R. FEIL

WY-MIX is a concentrated, medicated and mineralized salt. Each 15 lb. of it, added to 85 lbs. of salt, makes 100 lbs. of the best medicine you ever fed. It is a great tonic and conditioner, absorbs foul intestinal gas in which food ferments and which is one of the reasons animals go off feed. WY-MIX quickly puts off condition animals in such healthy, thrifty condition, that they make faster gains. It

helps stock to get all of the good out of their feed and saves you the cost of the feed now wasted because not utilized. WY-MIX is economical to feed. You don't pay drug prices for salts you add your own to WY-MIX and save half the cost of ready-mixed medicines. Don't send me a cent of money for this test package. Just fill out and mail the coupon below and I will send you three (3) pounds of WY-MIX, which you add to 17 lbs. of common salt, as directed, to make 20 lbs. of the best tonic and conditioner you ever used. Feed it as directed and at the end of 30 days, if you do not feel thoroughly satisfied with the results, just write, but don't pay for it. On the other hand, if you are convinced that it does improve appetite, digestion and general condition, and that it does all else I claim, they send me only \$1, after the 30 days' test. You be the judge. The 20 lbs. will last 40 hogs, sheep or goats, or 10 head of cattle or horses about 30 days. Before deciding upon the remedy you'll feed, see that it is backed by actual proof—not empty claims. I give such proof; in addition, you are further protected, as



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Stops Losses—Conditions Lambs

"After having lost 25% of my lambs, I started to feed WY-MIX. It stopped further losses and worked wonders in conditioning and fattening those which survived."

H. S. Stehman, Lancaster, Pa.

No More Sheep Lost

"I lost a bunch of sheep until I began to feed WY-MIX. It proved to be a great medicine as I haven't lost a sheep since."

Geo. M. Ferris, Sandy Lake, Pa.

All Sheep Saved

"WY-MIX has proved a good medicine for sheep. I haven't lost a single one since I began feeding it."

John W. Felton, Rawlinsburg, W. Va.

Pigs Grow Fast

"I had a bunch of fall pigs which were so badly out of condition I couldn't even offer them for sale; in fact I couldn't have given them away. Am feeding WY-MIX—and am amazed at their improvement—thriving and growing fast right through the cold weather."

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No Use Looking Further

"When you have once found WY-MIX, there is no use looking further for a conditioner, appetizer and stock tonic."

James C. Bittler, Pisgah, W. Va.

FREE IVO-SAN LABORATORY, 4212 St. Clair Ave., Dept. 35, Cleveland, Ohio.

Send me, enclosed your \$1 test package of WY-MIX. I will feed it as directed for 30 days and with their report results and will send you \$1, if it does what you claim. If it doesn't you are to receive the charge.

Name P. O. R. D. If you order large size give shipping station

31,000 eggs in December from 2200 pullets hatched in May



THE Howard Poultry Farm, Wichita, Kansas, made the record. The pullets received Dr. Hess Poultry Pan-a-ce-a in their feed from the start.

In November they laid 17,602 eggs. In December, 30,837. When only 7½ months old they had laid enough eggs to leave a fine profit over and above all their feed costs.

Pan-a-ce-a speeds pullets along to early maturity. Feeding Pan-a-ce-a, you get eggs when eggs bring high prices.

Remember, one egg laid in December is worth two laid in March. The 30,837 eggs received in December by the Howard Farm were equal in value to over 61,000 in March following.

The way to make your flock pay is to have them in full production early—ahead of the crowd, so you'll get the high winter prices.

PAN-A-CE-A

puts hens and pullets in laying trim

Costs little to use. One extra egg pays for all the Pan-a-ce-a a hen consumes in six months.

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WHITE WYANDOTTES. Everything from hatch-
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Golden Buff Rock Cockerels \$1.00
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Geeses, Duroc hogs, bred from prize-winners.
SHALENBROOK FARMS, Amanda, Ohio

1½ Large W. Embden Geese, 2 yrs. old, \$17.50.
Large early hatched S. C. H. Minors (dick), \$3.50;
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Buy your breeders now at special fall prices.
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GIANT BRONZE TURKEY TOMS. Massive bone,
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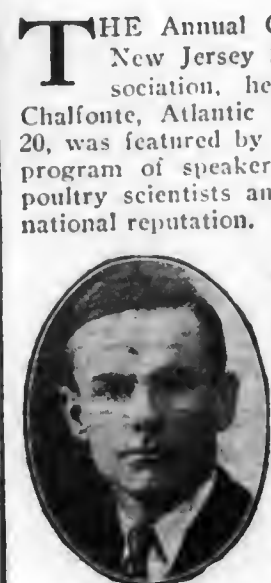
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AWARDED GRAND CHAMPION SWEEP-
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MASSIVE BLACK GIANT COCKERELS from 10
lb. hens, \$3.00 to \$7.50 each. Winners State Fair.
Circular. OAKDALE FARM, Urbana, Ohio

New Jersey Poultry Association in Annual Convention

By R. L. SCHARRING-HAUSEN



THE Annual Convention of the New Jersey State Poultry Association, held at the Hotel Chalfonte, Atlantic City, October 17-20, was featured by a very interesting program of speakers, which included poultry scientists and investigators of national reputation. Great credit is due Prof. Thompson of the New Jersey Experiment Station and his committee for securing speakers of such high caliber for the occasion. After the meeting had been called to order, and welcomed by Mayor Anthony Ruffo of Atlantic City, it was addressed by Prof. F. R. Beaudette, poultry pathologist of the New Jersey State Experiment Station. Dr. Beaudette spoke on "Developments of the Year in Poultry Pathology, with a Special Reference to Fowl Cholera and Fowl Pox." After describing several diseases and parasites which have the possibilities of affecting the New Jersey poultry industry, although at present they are of minor importance, Dr. Beaudette entered on a discussion of chicken pox.

Vaccination

Some work has been done toward controlling this disease by vaccination, by removing a few feathers on the leg and rubbing the vaccine into the follicles, which gives the bird the disease at a favorable time before the comb sprouts. Investigators of this method give conflicting reports of the effectiveness of such vaccination, some claiming a high mortality.

In regard to roup, Dr. Beaudette stated that he believed this disease to be a localized form of fowl cholera, as he has been able to isolate the cholera organism from all the forms of roup. Certain apparently normal birds have been shown to be carriers of this disease, the source of infection being the nasal cavity, the disease being transmitted from one bird to the other by means of the respiratory system. These carrier birds may preserve the organism causing roup from year to year, outbreaks occurring in the rest of the flock at certain seasons of the year.

In studying these outbreaks, Dr. Beaudette has made a practice of swabbing the nasal cavities of the birds under observation, and in pens where no carriers of the organism were found there were no outbreaks of cholera or roup. Dr. Beaudette stated that in one experiment 500 birds were raised in

confinement under strict sanitation and out of contact with adults, and no carrier has been found among these birds so raised, nor has any outbreak of cholera occurred.

Chicks Raised in Confinement

Prof. T. B. Charles, head of the Department of Poultry Husbandry in New Hampshire, and formerly connected with Pennsylvania State College, then related his experiences with confinement brooding, which he believes will become more and more in use on poultry farms as a method of controlling parasitic infestations which result in loss of vigor in the birds. In this connection he spoke of raising over 12,000 chicks with a mortality of about ten per cent where confinement was used, although in previous years severe losses had occurred from worms and coccidiosis on range, including a paralysis thought to be connected with coccidiosis. This paralysis affected grown birds as well as young stock.

Prof. Charles spoke of the necessity for screening to exclude flies which are the hosts of certain parasites, and also gave a favorable word to the use of batteries in the early life of the chick. He stated that it is often possible to control coccidiosis by returning chicks to the batteries in which they void the organism causing the disease without possibility of reinfection.

"A whole program of poultry sanitation could be summed up by keeping Poultry Out of Contact with the Droppings," stated Prof. Charles.

The All-Mash System

Following Prof. Charles, Prof. C. S. Platt, assistant professor of poultry husbandry at New Brunswick, gave a report of his investigations with all-mash feeding. According to the results of the experiments the all-mash system gave good results on chicks up to eight weeks and on laying birds during the winter when lights were used, but the grain and mash system seemed to be better at other times.

Prof. Platt stated that all-mash was good for a 50 per cent production, and would apparently bring up the average of a poor layer and decrease the production of a heavy layer. This talk was in the nature of a report, and Prof. Platt stated that at present he was seeking further information and was in position to make recommendations.

Dr. J. G. Lipman, Director of the New Jersey Experiment Station, then spoke on "The Experiment Station and the Poultry Industry." Dr. Lipman stated that any sort of business, whether manufacturing or poultry keeping, was faced by certain problems, the

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Year in and year out you can raise 90 to 98 per cent of your chicks to maturity if you use a Leola. Thousands of owners all over the country raise their chicks the profitable Leola-way. Let us give you the details about this remarkable house—write for a folder.



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LEOLA
BROODER HOUSE



Starts Hens Laying

Here's a New Way to Get Eggs in Winter.
Costs Nothing to Try

A letter from Miss Dama Wright, Vancouver, Wash., has a real idea for chicken raisers who are not getting plenty of eggs. She says:

"Late in October, our fifteen hens were not laying at all. I started giving them Don Sung and for ten days they still didn't lay. But on the eleventh day they laid thirteen eggs, and it is wonderful what Don Sung has done for our egg basket."

Don Sung, the Chinese egg laying tablets which Miss Wright used, are opening the eyes of chicken raisers all over America. The tablets can be obtained from the **Burrell-Dugger Co., 198 Postal Station Bldg., Indianapolis, Ind.** Poultry raisers whose hens are not laying well should send 50 cents for a trial package for \$1 for the extra large size, holding three times as much. Don Sung is positively guaranteed to do the work or money promptly refunded, so it costs you nothing to try. Right now is the time to start giving Don Sung to your hens.

solution of which determined the success or failure of the enterprise. Among them he named location, concentration, standardization, specialization, advertising and selling and research. It is in the field of research, according to Dr. Lipman, that the Experiment Station is vital to the poultry business, as the poultryman himself, no matter how well he works out the problems, has neither time, funds nor knowledge to carry out a program of research.

In the afternoon a special meeting was held for the ladies present, including an address on "The Use and Value of Eggs in the Diet," by Miss Marie Doermann, New Jersey extension specialist in foods, and a demonstration of canning chicken.

Poultry Management

Leo A. Groueten, of Farmington, Conn., a practical poultryman and president of the Connecticut Poultry Producers, Inc., next spoke on "Management Factors Which Affect Success in Poultry Farming." Mr. Groueten named these factors as brooding, feeding, sanitation, culling and marketing, and pointed out from personal experience and from methods employed on his own farm just how these points are tied up with successful chicken farming.

The meeting on Friday morning began with the address of Dr. O. N. Massengale, poultry nutrition investigator at New Brunswick, who spoke on "The Value of Milk and Meat Proteins in Chick Rations." Dr. Massengale explained that it is necessary to supplement grain feeds with certain forms of animal protein, as is well known, and after studying the effect of various rations including cost, mortality and rate of growth, he has come to the conclusion as the result of his experiments that a ration containing ten parts of meat to five parts of milk as sources of animal protein gave the best results.

Approved Stock

Following Dr. Massengale, Mr. A. E. Jones, poultry specialist of the Bureau of Markets, New Jersey State Department of Agriculture, outlined the "Progress in New Jersey's Certification and Accreditation Program." Mr. Jones showed how this movement was begun in 1923 by the Chief of the Bureau of Markets, Mr. Clark, and Mr. A. C. McLean, county agent for Mercer county, N. J., in order to put the newly developed Black Giant breed on a standardized basis, and traced its development with the addition of disease eradication methods to its present stage, where over 117,000 head of poultry were state inspected in 1927, explaining the methods now practiced to maintain a high standard of control.

Dr. Morley A. Jull, senior poultry husbandman at the government farm at Beltsville, Md., then addressed the meeting on the poultry investigations in breeding work being conducted there. Experimental work of immense practical importance is being carried on in the investigation of inheritance of egg production, hatchability and inbreeding.

Dr. Jull pointed out that earliness of laying, rate of laying, size of eggs, persistency of laying and broodiness are all inherited, and stated that the ordinary poultryman could do much to improve his strain by marking birds which started to lay early as pullets, laid well, kept it up, and were not persistently broody, without going to the expense of trapnesting. In discussing inbreeding, Dr. Jull stated that very close inbreeding, such as brother and sister matings, had a tendency to retard early laying and hatchability in the offspring.

At the annual business meeting of the Association the following officers were elected: President, J. P. Vreeland, Little Falls, to succeed E. H. Wene, Vineland; 1st vice president, Frank Markarius, Risley, to succeed J. P. Vreeland, Little Falls; 2nd vice-president, W. Weeks, Morristown, to succeed Frank Markarius, Risley; treasurer, John Cray, Stockton, to succeed Henry Eigenrauch, Red Bank; secretary, L. M. Black, New Brunswick,



Making 27c earn 56c

A Story of
"Home Mix" vs. Ful-O-Pep Egg Mash

THE TEST—Four pens of evenly selected Leghorn pullets were arranged at the Quaker Oats Company's Poultry Experiment Farm, Libertyville, Illinois, for a year's test.

Pens No. 1 and 2 were fed a common home-mixture (bran, mids, corn meal, ground oats, meat scrap, salt) and Ful-O-Pep Scratch Grains.

Pens No. 3 and 4 were fed Ful-O-Pep Egg Mash and Ful-O-Pep Scratch Grains.

THE RESULTS—Pens No. 3 and 4 (the birds getting Ful-O-Pep Egg Mash) exceeded Pens 1 and 2 as follows:

1½ doz. more eggs per year @ 30c . . .	45c
Fewer blood clots, fewer broken eggs . . .	5c
10% better hatch of 10 eggs (1 chick) . . .	10c
¼ lb. heavier weight @ 20c . . .	5c
Larger eggs, better shells (1c per doz.) . . .	13c
Smaller mortality . . .	5c

Total Extra Income per Hen 83c

Less extra cost of Ful-O-Pep feed (based on \$20 a ton difference in price and 7% greater consumption of the home mixture) 27c

Extra Profit per hen from Ful-O-Pep . 56c

THE MORAL—It Pays Real, Cash PROFIT to feed Quaker Ful-O-Pep Egg Mash. Near you is a Quaker Dealer. See him right away.

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The safehouse for poultry. Made of Life-Time ROSS Metal. Insulated, near-round, no corners, perfect ventilation, warm in winter, cool in summer. Front admits ultra-violet rays. Size 20x20x16 and up. Easy to purchase. See New Poultry Book that's sent free. Write today for the new Poultry Book that's sent free. The Ross Metal Co., 215 W. 4th St., Springfield, Ohio

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Wanted
HIGHEST PRICES CHECKS SENT DAILY
Oldest Live Poultry house in New York City.
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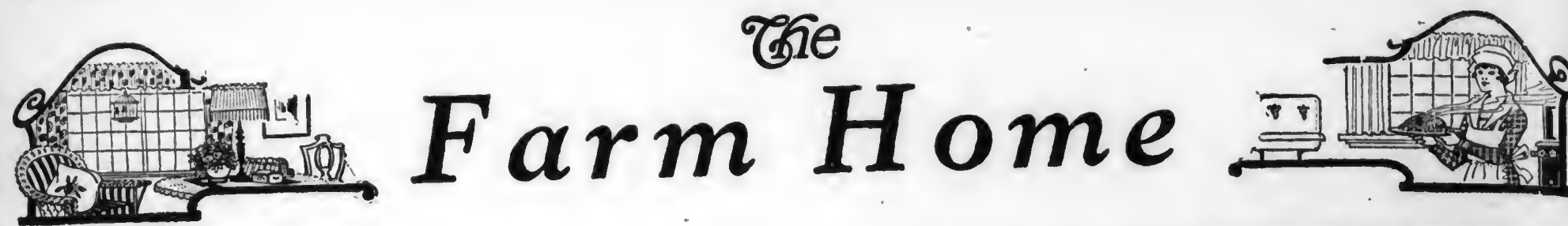
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EGGS, Etc.—Small consignments from pro-
ducers in your territory being very attractive
prices NOW. Prompt returns always. Write
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case. ZENITH BUTTER & EGG CO., 170 Quince
Street, New York City.

When writing advertisers say you
saw their ad in PENNSYLVANIA FARMER.



At our house the chicken money is saved to pay Sonny's insurance. Although but four years of age, his college education is being planned with an educational endowment policy. D. McC.



The Farm Home

My Kingdom for a Book

By GERTRUDE S. STEWART

AUTUMN chores are fast disappearing. Evenings are gradually lengthening. And now there is a greater need for more good books in the home. I heard a busy man say the other day that if he had to pay for all the books he had enjoyed this year it would cost him at least two thousand dollars. He is highly grateful to one of Philadelphia's splendid libraries.

And the county library will bring to rural folks the same high standard of book service that this city man has been enjoying. A county library will help give your child the same chance his city cousin has. Too many rural schools have no good books available for the children. Neither are there any for the parents. Yet children and adults need the enriching influence of good books written by master minds.

Theodore Roosevelt once remarked, "After the church and school, the free library is the most effective influence for good in America." Schools we have all over our great land, and churches too, but half the people on the American Continent are without library service.

How is it in your county? Have you a county library? Have you any access to good books for yourself and your family? Would you like a public library on wheels such as you see in the picture? And to supplant such service where trucks are not available or perhaps cannot travel, the rural delivery is used to send books to all who desire. A county library system means books for every man, woman and child in the county who wants to read.

Most states permit their counties to establish library service. But communities must decide through their county

boards or by vote of the people whether they are ready for county library service. No one county need wait for any other. It is an individual problem for each county. The American Library Association and the states themselves are anxious to give information and help. No community can afford to be without a library. If you have none in your county, and we can help put you in touch with those who will help, write us without hesitation. Address your letters to Home Department, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

On the Air

The Pennsylvania State Library and Museum offer splendid radio service through Station WBK, at seven o'clock each Monday evening. The November program is most interesting. You will hear E. J. Stackpole on "Selling Pennsylvania," Dr. George M. Sutton on "The Birds of Pennsylvania," J. Horace McFarland on "Pennsylvania's Scenic Supremacy," and Dr. J. S. Illick on "In Penn's Woods." Watch your local papers for more definite announcement about these programs.

"Kitchen Kinks" Contest Ended

MRS. MARVIN D. UMBARGER, Bel Air, Md., found two dozen ideas in the kitchen photograph used in the very first issue of the consolidated paper. You will be interested in her list, I know, and in outstanding items sent in by some of the other prize winners.

1. A beautiful electric stove.
2. Drop leaf work table.
3. Small work table, near the stove.
4. Linoleum covered floor.
5. Eating hook, cheery and handy.
6. Porcelain sink, proper height.
7. Well-dressed woman.
8. Dainty kitchen curtains.
9. Cheerful wall bouquet.
10. No unnecessary furniture.
11. Conveniently placed clock.
12. Handy shelf over work table.
13. Plenty of light.
14. Absolute cleanliness everywhere.
15. Stove the work nucleus.
16. Short distances between work centers.

Surely this is a very good summary and offers suggestions worthy of working toward in every home kitchen. Now a few additional thoughts from some of the others.

"The table is near windows, offering a beautiful outdoor view."—Geneva Hiestand, Chapel, Pa.
 "Cooking utensils in use are scientifically hygienic—they are straight up and down—absolutely without dirt-catching crevices."—Mrs. Edna Gray Huher, Greencastle, Pa.
 "Curtains set a kitchen 'off'."—Mrs.



In this California County Library, the Farm Bureau is the center for book distribution.

Margaret Kugler, Waynesboro, Pa.
 "A calendar on the kitchen wall is a fine step-saver."—Mrs. C. J. Myers, R. D., Euclid, Pa.
 "The woman in the picture has her hair neatly combed."—Miss Anna D. Johnston, R. D., Waynesboro, Pa.

"Kitchen curtains of light weight material are most desirable, permitting plenty of both air and light to enter."—Anna Weber, Adamstown, Pa.
 "All kitchens should have sanitary walls such as these of light paint."—Mrs. Ella Watson, R. D., Allenwood, Pa.

"Triple cooking pans cut down expense. Three different things can be cooked on one burner. Space too is saved."—Mrs. John A. Neuman, R. D., Englishtown, N. J.
 "This kitchen typifies 'a place for everything and everything in its place.'"—Mrs. P. J. Ringenary, Gordon, Pa.
 "There are no useless things standing around in this kitchen to collect dust and make much unnecessary work."—Bertha G. Lausch, R. D., Stevens, Pa.

Note:—These prize-winners have been sent a neat and useful piece of kitchen equipment, an ever-ready knife-sharpener. We thank you all for your splendid interest and hope you may always be able to make tastier sandwiches for the school lunch since there is no excuse for knives that won't cut.

The School Problem

I SAW an article in the September 9th issue about sending our children to high school. It would seem from what the writer said that the problem is nation wide. We have three children several years past high school age, or rather who have been through common school, one, two, and three winters, and though we like them to have an education, I do not feel it is the wise thing to send children of that age away from home influences and parents' authority, as we see too many ruined and wild lives among our neighbors' children who were thus sent away. Only about one out of nine made good and they were partially guarded.

Our only recourse is: First, bring our children up in the nurture and admonition of the Lord. Don't allow too much gadding about, none at night. Then at high school age either move near a school where we can have our children in the home, or else turn to the correspondence school or the church



These children have book service as near as their front yard mail box. The package of books is being returned to the Rusk County Library in

Requested Recipes

About Canning Meats
 I have been a reader of your paper for a good many years and have tried many of the recipes. Would some kind reader please send recipe for canning young chickens, cold pack way? MRS. H. F.

A Delicious Spice Cake
 Two cupsful brown sugar, butter the size of an egg, one egg, one cupful thick sour milk, one teaspoonful soda, one-half teaspoonful cinnamon, one-half teaspoonful cloves, one teaspoonful nutmeg, two cupsful flour. MRS. C. J. R.

Fritters That Flit
 Yolks of two eggs, one pint of sweet milk, pinch of salt, flour to make a smooth batter. Then add the egg whites beaten to a stiff froth. Fry in deep fat. Corn, apples or peaches may be used for flavor. MRS. W. J. L.

A Dark Chocolate Cake
 One cupful sugar, butter the size of an egg, one cupful sour milk, one teaspoonful soda in the milk, one-half cupful cocoa in the water enough to smooth, one and one-half cupsful flour, one teaspoonful vanilla. MRS. HERBERT SERFASS.

Spinach Loaf
 Mix well together one cupful fine chopped cooked spinach, two large onions diced fine and browned in drippings. Blend with three tablespoonsful top milk, two well-beaten eggs, two tablespoonsful melted butter, one-half teaspoonful salt and a dash of cayenne. Pour all into a greased mould, set in a pan of hot water and bake in the oven about 25 or 30 minutes until the center is set. Garnish to suit your fancy, serving on hot platter.

Chicken Dumplings
 Boil a chicken, preferably an old one. Pick meat from bones. Make a filling of stale bread broken in bits, moistened with melted butter and seasoned with salt and pepper. Mix chicken meat with this. Make the crust as for apple dumplings, roll in rings size wanted and fill with the mixture and bake brown. Make the gravy in the usual way and serve with the dumplings. This is a dish fit for a king. M. S.
 [Why not bake in one pan and serve on table?—H. N.]

To Can Kraut
 In a former sample copy of The Farmer I saw a request for information on canning kraut. I have canned kraut for years and never have lost a can by spoiling. Cut bacon in slices, then in half-inch pieces and brown nicely in a skillet. Have kraut boiling in a kettle, dump the browned meat on top and stir through the kraut. Fill into hot sterilized jars and seal. How convenient when one has one of the big jobs, as washing, house cleaning, etc., to open a jar of meat and kraut, make a dish of mashed potatoes to serve with it. This makes a hearty dinner along with the usual table fixings. M. S.

Oatmeal Cookies
 One-half cupful lard, one cupful sugar, one egg, five teaspoonfuls milk, one-half cupful raisins, one and three-fourths cupful rolled oats, one-half cupful nuts, cut fine (not necessary unless desired) and one-half cupfuls flour, one-half teaspoonful salt, three-fourths teaspoonful cinnamon, one-half teaspoonful cloves, one-half teaspoonful allspice, two teaspoonfuls baking powder.

If the flour is sifted before measuring and leveling off all your measurements your cookies will be better and more soft. Drop from a teaspoon on the bottoms of your well greased pans two inches apart.

Candied Citron
 Lately I saw a request for a recipe for candied citron. One pound citron, one-half cupful water, one and one-fourth cupsful sugar.

Boil sugar and water for five minutes. All citron cut in medium thin slices and cook until it begins to be tender. After it reaches the boiling point it may be placed in a fireless cooker on a hot radiator for four hours or to save time it may be placed in a pressure cooker for sixty-five minutes under ten pounds of pressure. Then remove from cooker and boil for ten minutes to reduce syrup.

Drain slices on plate to save the syrup and place on a cheesecloth over rack in a warm place. Dry pieces until they are not sticky, about twenty-four hours. The slices should be clean and perfectly tender.

Read How A Scientific New Dual Principle Has Revolutionized Washing

A SCIENTIFIC discovery of far reaching importance to women everywhere has been made by the Boss Washing Machine Company.

For years this company has made what thousands of women have claimed to be the leading washer, in both time and quality of work.

Yet now a new principle has been introduced which makes washing still quicker and faster, resulting in still whiter clothes and greater safety to flimsiest garments.



weather. A mere pressure of the foot starts it going. The Boss Thermo Washer equipped with this Boss gasoline motor is a delight to farm and suburban women where electricity is not available.

Greatest Value Ever Offered in a Washing Machine

You cannot be completely satisfied with the washer you buy unless it has the three outstanding and exclusive features, the "Boss Flusher," "Boss Tri-Thermo Wall Construction," and the "Boss Self-Feeding Wringer."

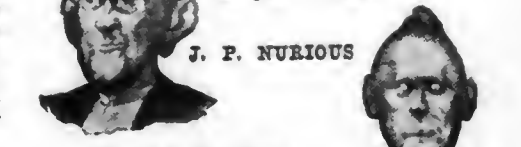
Besides these features you should insist on the Tintometer Test Record which shows greater cleansing ability. Boss enclosed mechanism on the "electric" which means safety for children, the ability of Boss to wash more clothes at a filling, Boss washing speed which means shorter wash days and the Boss Guarantee which means finer appearance, finer workmanship and a promise of longer, trouble-free washer operation.

Your Present Washer

If you have one ask your nearest Boss dealer about an allowance for it on the purchase of a brand new Boss. If you haven't a washer now is the time to get a Boss, they are so low in price. You can really get a Boss Electric for as low as \$89. Other models at moderately advanced prices.

Easy Purchase Plan

Every Boss dealer is authorized to offer you liberal and exceedingly easy terms. A small cash payment on delivery and the balance payable in convenient sums weekly or monthly as you choose.



Some Folks

Every Boss dealer has never had any kind of a washer, not IMA DUDGE even the remarkable Boss. Most of them, though, are in the class with J. P. Nurius, the husband who thinks washing machines are the bunk, useless new fangled notions and all that. Still, you never see him over a wash tub. Then, there's poor Ima Dudge, with spirit broken and without backbone enough to demand that her wash day drudgery end immediately.

Act Today

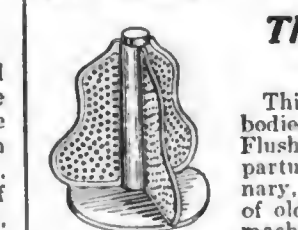
See your nearest Boss dealer today. We will give you his name and address on request and send you literature so you can read more details about the famous Boss Thermo Washer.

Free A Charming Gift for the Ladies

We will also send at the same time, a pleasing little vanity mirror, fashionably out of a section of the famous Boss Tri-Thermo Wall. It will serve as a beauty-aid and reveal a great secret of Boss Thermo Washer superiority at one time. This offer for adults only and only one vanity mirror to a family. Write at once, using coupon below.

THE BOSS WASHING MACHINE CO., Dept. P-11 Cincinnati, Ohio

Makers since 1889 of over one million Boss Washers



The "Boss Flusher"
 This principle is embodied in the "Boss Flusher," a startling departure from the ordinary, common agitator of old fashioned washing machines.

It operates on the dual principle of flushing or hydration and "high turbulence." No other washer has the Boss Flusher and it may be readily identified by its bell shaped appearance and its hundreds of little holes or perforations in the three wings.

As the "Flusher" moves, hundreds of little streams are forced with hydraulic effect through the holes, darting into and through the fabric, flushing and cleansing it with amazing thoroughness and gentleness. These holes, together with the scientific shape of the "Flusher" also cause "high turbulence" or increased water action behind the moving wings, aiding further in the cleansing operation.

Scientists tested clothes washed in the Boss Thermo Washer on the "Tintometer" and found them deeper whiter than clothes washed in other leading types of washers and many say that every woman should ask, before buying a washer, for its Tintometer Test Record. Any Boss dealer will gladly show you the Boss Thermo Tintometer Test Record.

"Thermo Wall" Construction
 Another great feature of the Boss Thermo Washer is the Tri-Thermo Wall, consisting of a wall of highly polished nickel-plated copper on the inside, then a wall of special insulating material and

on the outside a wall of rustless auto body steel. Besides being ELECTRIC OR GAS MOTOR

dent proof this wall has high heat retaining value, keeping water hot and highly effective. Experts found water temperature not to vary 5 degrees in over an hour's operation. That by itself means clothes washed whiter and more quickly.

Boss Self-Feeding Wringer
 A remarkable new boon for women: everything a wringer should be, plus the amazing advantage of its self-feeding principle. Simply place the end of the wet clothes into the "chute". The self-feed does the rest. No need to put fingers anywhere near the rollers. Clothes come out with buttons spared and extra dry and immaculate. And to instantly throw wringer wide open, simply press down lightly on the feeder chute. Greater safety, convenience, efficiency—found only on the Boss Thermo Washer. Remember that.

Boss Gasoline Motor for the Farm

It operates on the 4-cycle instead of the 2-cycle principle, just like the motor of the most expensive automobile. It is fool proof, easy to operate, dependable, easy to care for and easy to start in coldest

THE BOSS WASHING MACHINE CO., DEPT. P-11, CINCINNATI, OHIO

I am interested in the Boss Thermo Washer [] Electric [] Gasoline Motor. You may send me literature and the absolutely FREE vanity mirror, without charge or obligation of any kind.

Name _____

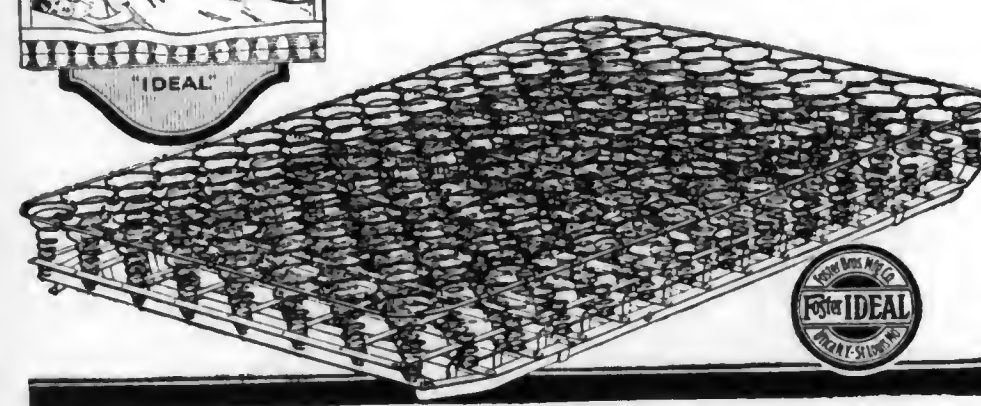
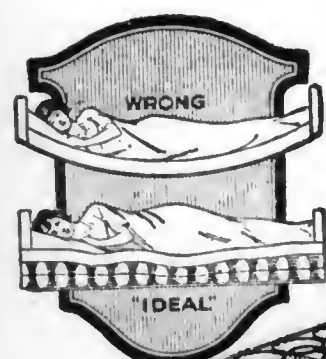
A Bank Surplus Will Not Meet a Body Deficit

MONEY may do many things but only sleep will nourish your nerves and sound nerves need regular nightly deposits of sleep. Regardless of what you may be willing to invest in efficient rest the IDEAL SPRING is within your easy reach—waiting to give you, at little cost, finer spine support and better nerve nourishment than the most costly of bedsprings. There's a very logical reason why. Our pamphlet, "The Common Sense of Sleep", explains it and if you are interested in better health you will write for your copy today.

The Foster Ideal is made of guaranteed tempered spirals and sold at most furniture and department stores

Foster Bros. Mfg. Co., Utica, N.Y.
Western Factory St. Louis, Mo.

Makers of Foster Ideal Metal Beds, Foster Toe-Trip Cribs, Foster Day Beds and Foster Ideal Springs—the bedsprings that support the spine

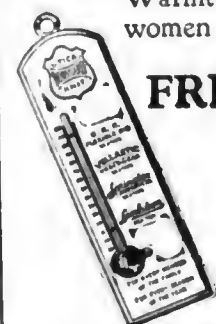


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ADVERTISING IS THE MODERN INTELLIGENCER. It keeps you informed, advises you of new things, suggests new uses for articles you already own, and prepares you today for wise and useful purchases tomorrow.

To Prevent Disease in Schools

By HEPSY NEFF

PERHAPS many of our readers are familiar with the work being done under the direction of our Children's Bureau of Labor, at Washington, D. C., as well as that done under the direction of the Department of Agriculture. To those who do not know the extent of the helpful and dependable material coming from these two sources, may we again urge the asking for lists of the free farmer's bulletins already in print and to be enrolled on their books for such new bulletins as are being put out from time to time. Some especially technical and valuable bulletins carry a small charge, from five to twenty cents each, and you will receive notice of these as they are issued.

There is hardly a phase of farm activity, indoors or out, that has not been the subject of careful and expert study. The American Child Health Association of New York city, being made up of parents, teachers and physicians, feels perhaps a little more free to offer plain talk than some of our government officials. All these sources of help only increase the responsibility of parents for the health of their children, a responsibility which we are far from taking as seriously as we should. Quoting from the reports of the Child Health Association, the following suggestions seem helpful and timely.

Colds and Kindred Ills

"Why is it that measles and whooping cough are so likely to be spread in school? The probable reason is that it takes so long to be sure that one or the other of these diseases is present. In whooping cough it may be a week or ten days after the child has the disease before the characteristic whoop appears, and for two or three days measles often resembles an ordinary cold. Theoretically, in order to be permitted to attend school a child should be perfectly well. We do not exclude or even segregate children who have colds or coughs, though it is doubtful if they gain anything from school attendance when suffering even mildly from these conditions. It may be said that no child can study to advantage if ill enough to have a fever, sore throat, cold or cough, ear ache, sore eyes, diarrhea or pain.

"Under such circumstances, attendance at school may be not only a positive

danger to the child itself but also to its playmates, before it is recognized. Children are sometimes allowed to go to school with discharging ears, but that is not wise. Such a child should be under the constant care of a physician until the condition is relieved. A discharging ear may mean a contagious disease, particularly scarlet fever, and the discharge may reproduce the disease in others.

Sources of Infection

"Children should be taught that there are ten objects which commonly carry disease from one person to another and that these ten dangerous objects are nothing more or less than our ten fingers. Perhaps a child has symptoms of a cold which may be the beginning of an attack of measles. He still feels well enough to play and in handling a ball or other object gets on it from his fingers an infinitely small quantity of secretion from his own nose or mouth which he passes along to another who gets even a smaller quantity of the first child's mouth or nose secretions and wakes up two weeks later with a large sized attack of measles. Of course there are other ways of exchanging these secretions, such as the common drinking cup or imperfectly constructed drinking fountains."

Parents with a frail child often dread the first year in school, as well they may. Many diseases that come during that critical year between six and seven leave lifelong defects unless corrected by long and careful medical attention. Many of the men examined for entrance into the late war still carried physical and remedial defects from their childhood. If all parents were careful to keep a child from school attendance whenever even slightly ill what gains would be made.

Some states require that school attendance should begin with the sixth year, but surely when the equivalent of school attendance in study at home can be assured the privilege of keeping a frail child from school until at least the age of eight should be readily granted. Luther Burbank said: "No child should be shut up indoors with books until he is ten years old." Such splendid provision for home teaching is now being made that careful parents may be sure the child will gain rather than lose by being sheltered at home a few more years.

Profits Made From Nut Crops

AS I write this message I can look back on a ridge out of my office window to the beautiful gorgeous autumn foliage effect of the many species of trees. All nature seems to be enjoying itself. All over the country the squirrels are heaping up a winter supply of good nuts. To the farmer girl and boy I ask, how many are profiting by Mr. Squirrel's example and making use of so valuable a food as the black walnut and the hickory?

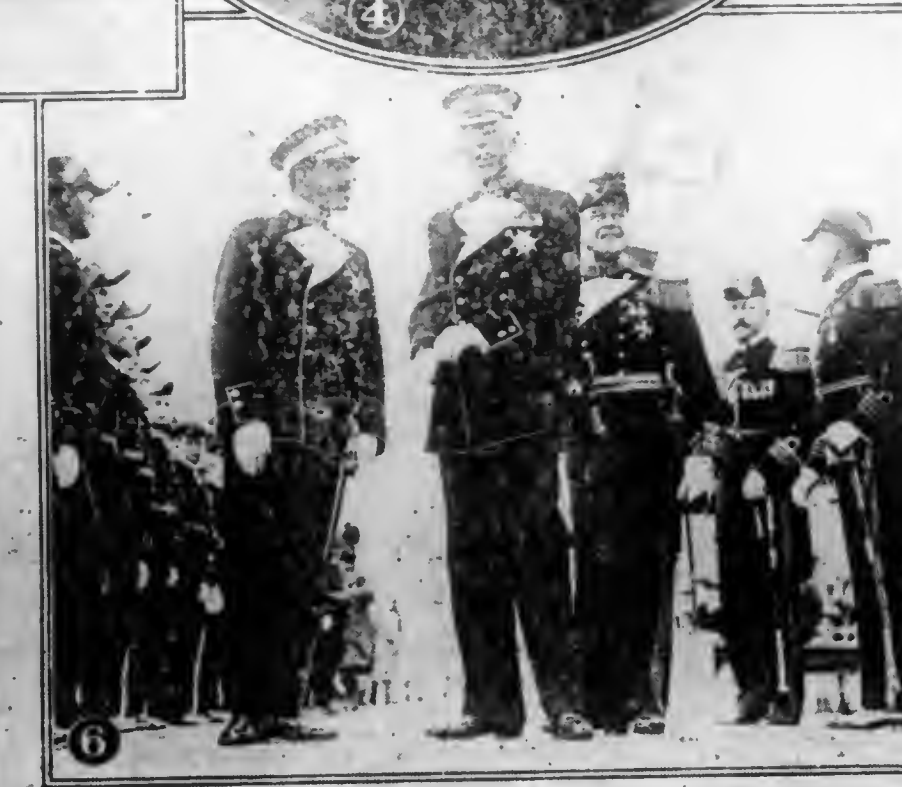
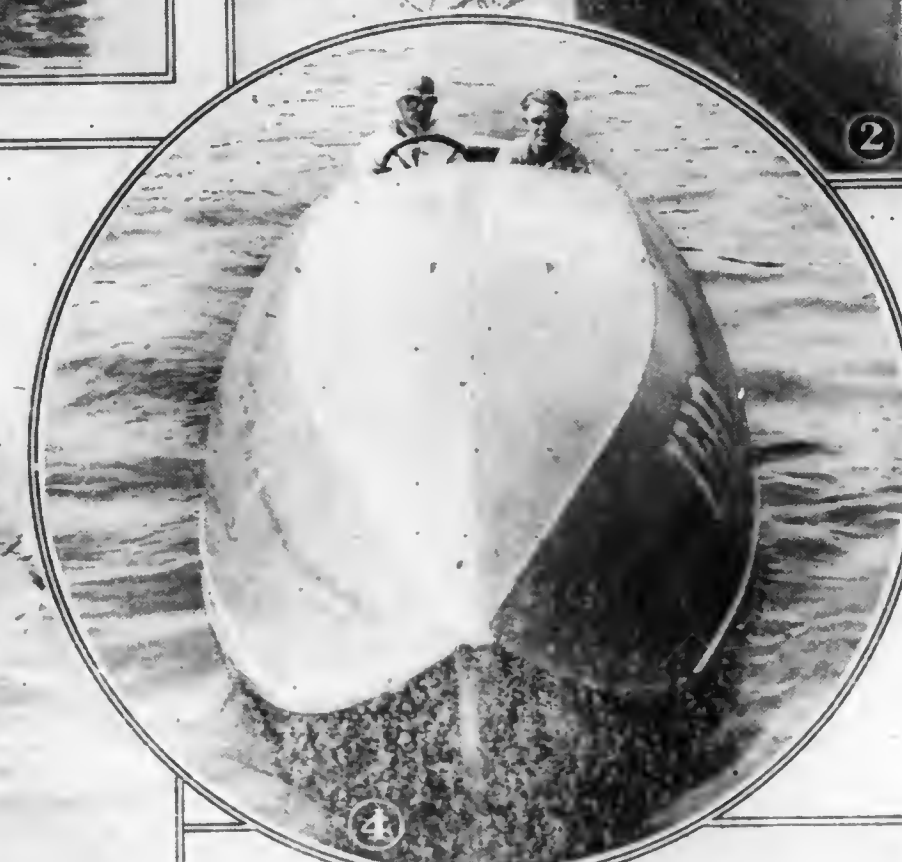
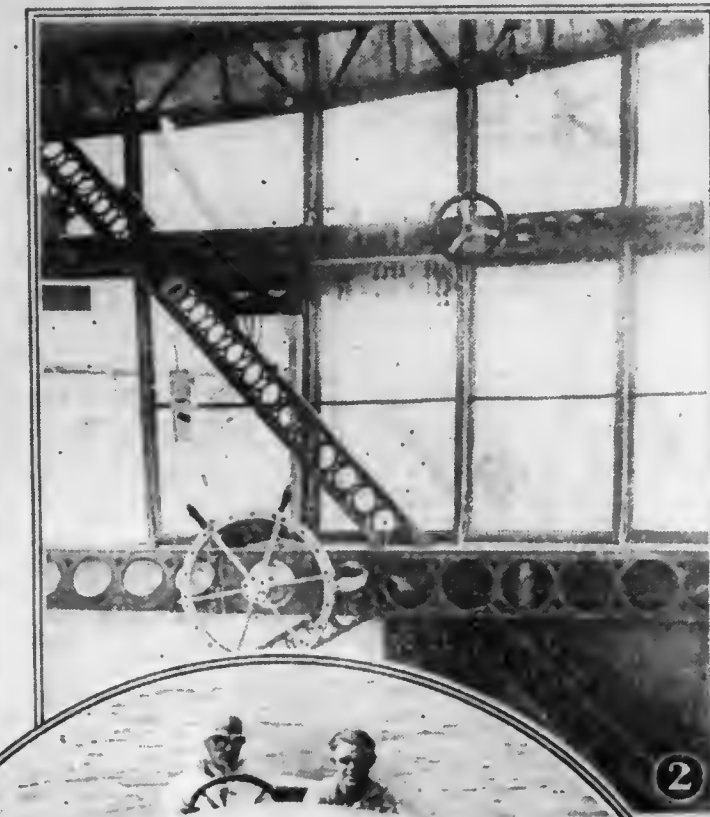
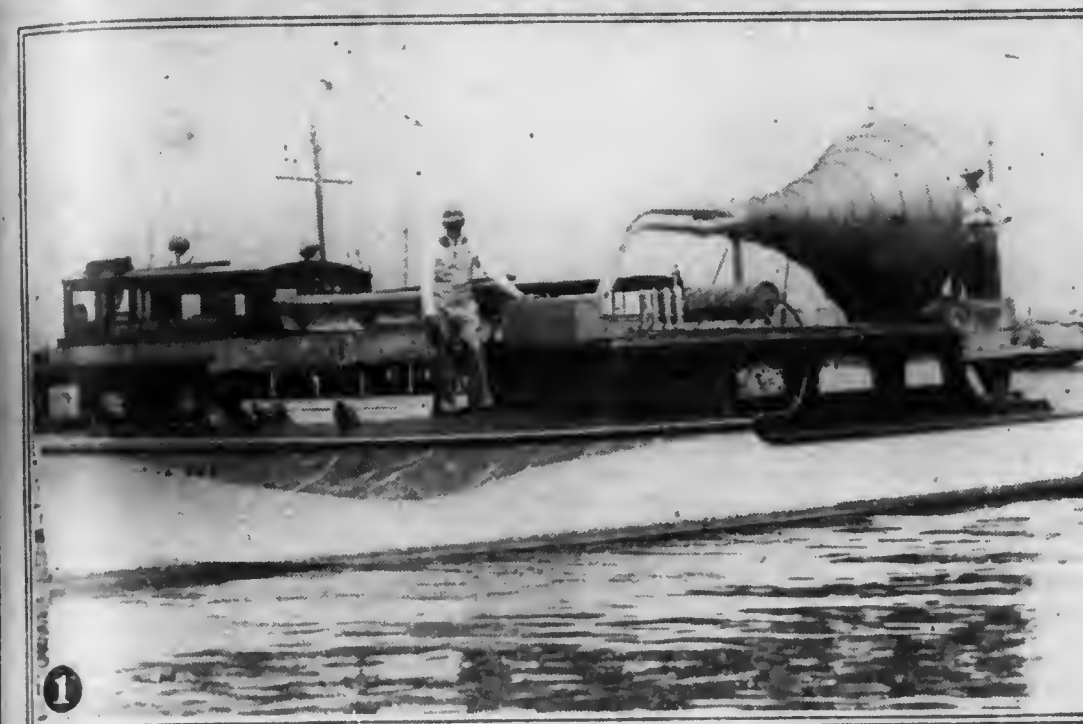
Some years ago I remember one school girl near Lancaster, Pa., sold \$28 worth from one walnut tree by cracking and picking out the meats and selling them on the city markets. True, it is slow and tedious work. For those who need the information I wish to say that no better way to make money can be had for such purposes or to help the farmer along than by cracking walnuts in winter evenings. The nuts can be got for nothing or for not over a dollar per bushel by gathering them from the farmers. Then hull immediately so the least possible amount of tannic acid soaks through into the kernel, then spread them to dry. I have mine on a gently sloping roof. Let them dry a few weeks and then

Although people are using nuts all winter and most of the year the December trade is the strongest. But here's the rub: How to get them out in any fair size pieces.

By the ingenious ability of a salesman in Harrisburg a real nut buster has been developed. This buster will improve the cracking of the meanest seedling and where one used to get only small pieces out by digging and cussing, one can with this buster pull out most of the meat in quarters or at least half quarters. If the nut is a good cracker halves are obtained.

Many people have never considered the value of a nut as food. Do you know it contains about four times as much food value per pound as meat? But we do not expect to switch the people to a new diet to sell the walnut meats, as there is a remarkable demand now. The consumption is so great that carloads of nuts are sold every year in the large cities, the retail price running from \$1 to \$1.50 per pound. One bushel will crack about six to seven pounds and selling for a \$1 per pound you can see the profit that can be obtained by utilizing some fall evenings and winter

EVENTS CAUGHT BY THE CAMERA



(Copyright by Underwood & Underwood)

1. World's greatest marine load speaker, can be heard 4 miles away. Photo shows D. F. Roelrig, designer of the huge marine horn, and Frank Mettel, owner of the device, and the specially built cruiser. The device will be used specially for official directing water races, although it could be used for entertaining as a mammoth radio loud speaker.

2. This picture shows an interior view of part of the control and navigation rooms of the Graf Zeppelin, world's largest dirigible, which recently made a successful flight across the Atlantic and is attracting attention wherever it goes in this country.

3. The cowboys' swimming race was the first event of the annual world's championship Chicago rodeo, and was introduced this year for the first time at the request of the contestants. Prizes were awarded to the three winning: \$250 first; \$150 second and \$100 third. The race was won by Tommy Kirman. Our photo shows the course of the race in Lake Michigan about 300 yards from the shore.

4. "Miss Los Angeles," believed to be the fastest motor boat in the world, speeding in Long Beach Harbor. The boat is owned by James A. Talbot, Jr., and Ralph Snoddy, expert racing driver, is her pilot. The 16-cylinder, 750 H. P. motor was built by Harry

A. Miller and her owner expects the craft to make a better record than the world's speed time of 80.567.

5. Photo shows the memorial to William Penn, the founder of Pennsylvania, in the All Hallows, Barking-by-the-Tower, where he was baptized in 1644. It is the oldest parish church in London and is still in an excellent state of preservation despite its age.

6. Two royal admirals—King Alfonso of Spain (left) with King Gustav of Sweden on board the Swedish battleship "Sverige" after reviewing the members of the crew.

Adventures of the Brown Family

No. 16

By PHILIP KANE

Beth Visits Neb and Brings Him Home

DURING the months which had passed since he had been discovered sick and alone in a little room of a home in the negro quarter of a town some distance from Lone Oak Farm, Black Neb had been provided for by Jack Miller. No provision for the faithful servant of Old Captain Pettibone had been made in the captain's last will which named Jack Miller as executor, but Young Jack considered it merely simple justice that the old man's declining years should be as free from care as possible. But now a complication arose as Isobel Sanchez, imperiously demanding her rights as heir at law, commanded that the allowance be cut off.

"The old black man means nothing to me," announced the Spanish beauty caustically. "He is better off dead, anyway."

"But he served your grandfather for years without pay," protested Jack Miller. "It is only common decency that he be provided for in his old age."

"More fool he was to work without pay," replied Isobel. "You are helping those Browns, my Jack, because I was foolish to sign what you call a contract before my eyes were opened. But now I can see. Promise me that you will never go there again and you shall have money for your black friend. Refuse, and he may die for all I care."

"Like blazes, I'll promise!" flared Jack. "The Browns are my friends. If you refuse to let me care for poor old Neb out of the riches his old friend and master left I'll find a way myself."

"Yes, you are a particular friend of one Brown," taunted Isobel. "You spend my money to help her. One day I shall be of age and you no longer my guardian. And when that comes I shall live in the house of my grandfather. You, my Jack, are not true to me."

"I wish to heaven I'd never had the job!" cried Jack in exasperation. "But I can't betray the old captain's faith in me. Sometimes I doubt, Isobel, if his blood really runs in your veins."

"Oh, my Jack! You break my heart! You must not doubt me; you must not leave me." Warm arms were clasped around Jack Miller's neck, tear-drenched eyes looked into his eyes. As he gently disengaged his ward's arms Young Jack would not have been human had he not thrilled to her plea. Yet stubbornly he refused to give the required promise and without Isobel's permission no part of the heritage could be used for Black Neb. Jack took his perplexing problem to Beth Brown to be instantly assured of loyal cooperation by the Brown family.

"**B**ET your life," said Hal Brown heartily. "We'll help take care of the old geezer. That lady friend of yours, Jack, may be from a warm country but she has a heart like an iceberg. Why not take the flivver, Beth, and run over and see Black Neb? The old boy seemed to take an awful shine to you."

"That's a good suggestion," observed Jack gratefully. "Neb calls you his 'pretty missie,' Beth. It would be an event in his life to see you and I fear he hasn't many months to live."

"Of course I'll go," announced Beth as she flushed at Black Neb's complimentary title. "I really liked the poor old man." Then with sudden inspiration, "Why not bring him here, mother? There's plenty of room and he's still able to help chore about the farm. After all this is more his home than the home of any of us. Think of the years that he served his master here."

"Surely you can bring him," replied warm-hearted Mother Brown. "No doubt he can earn his room and board, Jack, and there's no more loyal friend than an old negro of Black Neb's type. If he isn't happy here or if we find that it's inconvenient, then other arrangements can be made."

"You are a trump, Mother Brown!" cried Jack Miller as he clasped her hand. "Gee, that takes a load off my mind and I assure you that if it doesn't work out satisfactorily I'll take Neb off your hands. I can't leave, Beth, but I hope you can go after him tomorrow. The old boy will be tickled stiff to get 'jack home' again." It seemed to the Browns that Young Jack had become very much one of the family but only Beth noticed that impulsive "Mother Brown" with which Jack had addressed her mother. Beth smiled happily as she visioned the joy of Black

FATHER BROWN, a trainer of race horses, picks a winner and with the earnings buys a mystery shrouded farm once owned by an old sea captain. The "House of the Lone Oak" immediately becomes the scene of strange happenings and of tales of pirates and buried treasure. Captain Pettibone's will leaves a hidden chest of gold to the owner of the farm, provided no heir is found. Hal Brown discovers a secret passageway but no treasure. Night prowling, stealing and the actions of the curious and inquisitive Spanish neighbors, the Fernandezs, arouse suspicion. Jack Miller, a friend of the old captain, refuses to tell what he knows about the gold but when Little Joe Brown is lost Jack leads the searchers to a cave, unknown to others, where Black Neb, Captain Pettibone's faithful old servant, has been living in seclusion. Black Neb disappears and when the Browns later find him Isobel Sanchez, the alleged heir, suddenly appears as the result of a search made by Jack Miller. Beth Brown and Isobel clash while Juniata Fernandez sides with Hal in his battle with Jack. The Browns learn of a ziuc mine on the farm and face loss of home and mine because of the old will. They doubt the identity of Isobel Sanchez and start a search for the real heir who the Fernandezs claim is a cousin of Juniata's.

Synopsis

Neb when he was told that the house so many years his home was to be 'home' again. Nor could Jack Miller help but contrast the impulsive and warm-hearted generosity of his American girl friend with the repellent attitude of another maid who had only her own selfish interest in mind.

"Sho, Missie, it can't be true! You air just a foolin' old Neb. Thar aint anyone else who cares whether this poor old nigger lives or dies 'cept Marse Jack. You wouldn't want to be bothered with a wuthless old man like me."

BETH BROWN, her lovely eyes suffused with tears, listened to Black Neb and watched the nervous tattoo of his hands upon the window pane where he sat gazing out upon a desolate street. The generous offer of the Brown family had seemed too good to be true and the old man must have added assurance before he would leave. "It's all true, Uncle Neb," said Beth softly. "and here is a letter from Jack to you. It will tell you why he approves and one reason why you must leave here."

Peering through horn-rimmed spectacles, Black Neb slowly deciphered Jack Miller's message.

"She'd turn Old Neb out to starve," mused the old man, "that black-haired gal that we thought was the old captain's grand-darter. An after all the years that Neb spent watchin' the gold for her. Sometimes I has my doubts, Miss, I has my doubts. An are you still sure that you want Old Neb to go back to his old home?" The old man turned his eyes upon Beth, eyes which held all the devotion and entreaty of a faithful dog.

Tears flowed down Beth's cheeks as gently she again assured the old negro that she had meant exactly what she had said. "It is your home, Uncle Neb," said Beth, "and I hope it will be home to you as long as you live. It will not be charity for soon you will be strong and well again and able to do a lot in helping around the place. We'll go now, just as soon as you can pack."

"Glory to God! Praise His name!" chanted Black Neb. "I'm gwine back home to stay. God bless pretty Missie an' all her folks!"

There was no thought of personal or selfish gain in Beth Brown's heart as with Old Neb she set out for Lone Oak Home. But the old negro, his face transfigured, said as he stepped into the car. "Bread east on the water is gwine to be returned to you, Missie. That's what the Good Book say an' it am true."

So to the House of the Lone Oak came one who had long known its secrets, to become a strong link in the chain of destiny which should affect many lives before the final drama should unfold. Black Neb had come back home.

With refusal of Isobel Sanchez, claimant of the Pettibone fortune, to provide for Black Neb, the old captain's servant, Beth Brown's suggestion to bring the old man back to the House of the Lone Oak was

approved by all members of the family. Jack Miller, who feels keenly his responsibility, is impressed and surprised. So again Black Neb finds himself inmate of the old home which had been a house of mystery.

As the days passed it seemed to the members of the Brown family that a new chapter to the book of happenings had been added with the advent of Black Neb. Gentle, fervid in religious beliefs, re-vitalized physically and mentally by good food and treatment the old negro soon became an indispensable member of the household. With the courtly deference of another age he served Mother and Beth, with a strength which he had not known in his youth, for Father Brown and Hal abided on the farm. But it was for Mary and Joe that Black Neb would gladly lay down his life. They never forgot the strange and stirring stories of his adventures with Captain Pettibone. Black Neb had sailed the seas.

To the old negro, Little Joe soon became a shaking me. Instantly I was sitting up. What's the matter now—what's wanted?" I inquired. "It was one of the guards that answered: 'We mounted men coming up the road from the creek.' I had instructed the guards to wake me whenever anything suspicious occurred."

"All right," I told him. "Go back to your place. I'll be out there right away."

So I huddled on my six-shooters, grabbed my rifle and jumped out of the wagon. The noise I made awoke Santiago. He was very much frightened and called out excitedly in Spanish—he couldn't speak English:

"Que tiene usted, señor? Que tiene? Vienen los atacarnos?" (What's the matter, sir? What's the matter? Are the Indians about to attack us?)

"Quien sabe?" I answered. That's the reply a Mexican always gives to a hard question. It means 'who knows?' but it's equivalent to 'I don't know.' Without stopping to explain, I hurried out to the guard on the west side of the camp. The horsemen were approaching from the west. While I couldn't believe that Indians would ride up so boldly to make an attack, I was still anxious to learn who the horsemen were. They might be warriors of some other tribe, just passing through the country, who didn't know that white men were near.

"Can you make out anything as to who they are?" I inquired, as soon as I came to where the guard was standing.

"Not for certain," he answered. "But I think I can hear sabers rattling."

The moment he said that, I was wonderfully reassured. If the horsemen were armed with sabers, they must be United States cavalry. Nobody on the plains carried a saber except a soldier.

"Now I listened for myself. The party were yet a good distance away; but the night was still and the sabers carried distinctly. Not only did I hear the clinking of sabers against saddles, but now and then I could catch a word or two of the horsemen's conversation. By that I knew them to be white men. And I now had no doubt that they were Government troops. This meant a re-inforcement for us, they would stop, and was very welcome news. I men, I felt sure, would give a good account of themselves in a fight. But nobody could tell how numerous the Indians were; and we were too few to stand much of a show against a big war-party."

The horsemen followed the trail till about three hundred yards from our camp. There they turned out and came toward the wagon. I waited till they were pretty close, then challenged them.

"Halt! Who comes there?"

The party stopped, and a man riding in the lead called back:

"Kit Carson! I recognized the voice."

Of all the people on the plains, there was no one I would rather have seen just then. If anybody could pull us out of a tight scrape, Carson was the fellow.

"Come ahead, Kit!" I shouted. "You're the very man I wanted to see, and the last man I expected to see! I want you to camp with us! We may need you before morning!"

"Hello, Mack! That you?" he called out. "They say you'd started from Santa Fe. We've been waiting your camp-fires and expecting to overhaul you. But you've marched a pretty lively gait."

The party now advanced, and Kit and I met and

The Brown Family

READERS of Pennsylvania Farmer, who have missed "The Adventures of the Brown Family" in recent issues, will welcome the resumption of the story this week. Those who are not acquainted with the Browns, by reading the synopsis, will be in a position to enjoy the adventures of this family as they unfold in subsequent numbers.

oman again? If she is the old captain's darter sholy she must look some like him. you bring her hyar?"

Beth pondered the request. While Jack again was on friendliest terms with the Brown family—and Beth felt in her heart on more than terms with her—still he was intensely loyal toward. Would it be disloyalty to Jack if she try to prove Isobel Sanchez an impostor to Black Neb? Then with her resentment against Isobel he induced to again come to the of the Lone Oak?

"Bring her hyar whar I can have a chance at her," pleaded Black Neb. "Ef a wrong has done, Miss Beth, it must be right! I both sakes and the sake of the little gal at old saved fer."

Yes, there was another aspect to the strange and Beth quickly decided to comply in Hal talk it over with Hal, Uncle Neb. Beth assented, and if Miss Sanchez comes here I shall have a chance to study her unseen. We shall square deal and what's coming to us. But I don't the girl she claims to be how can we be the real one?"

(Continued next week)

A Night With Kit Carson

By LEWIS B. MILLER

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Continued from last week

shook hands. He had about twenty men with him.

"Where are you coming from?" I wanted to know.

"All the way from California," he told me.

"And where are you bound for, you and your men?"

"To Fort Leavenworth. But from there I travel on east. I'm the bearer of dispatches from General Kearney to the Government at Washington City."

"Said I: 'Dispatches? Good news or bad, Kit?'"

"Good news, Mack—good news! My dispatches state that California has been captured from Mexico, and that an American government can now be established there. The dispatches give the main facts, and I'm sent along to furnish particulars—to answer any questions that the Secretary of War or the President or any of 'em may care to ask."

"Good for the Americans, Kit!" I answered. "Hard to beat, aren't they? My father saw the United States Government jump across the Mississippi to the Rocky Mountains; and now we see it jump over the Rockies to the Pacific Ocean. Wonder if we'll ever jump that! We're hard to head—hard to head off!"

"Right you are, Mack!" he exclaimed. "Nobody ever yet saw the heat of us! The Pacific may call a halt on us, but nothing else can. The men haven't been born that can head us off when we cee take it into our fool heads to go anywhere! But, Mack, don't you know that this whole country around here is alive with redskins? The woods down along the creek fairly stink with 'em—so our horses told us as we rode through."

"Yes, we'd found that out, Kit," I informed him. "That's why we drove on up here instead of camping down there in the woods. I thought we could make a better defense in the open than where the Indians could skulk behind trees."

"Then Kit said: 'You're a pretty good frontiersman for a counter-jumper, Mack. You've got the right idea. As long as you can't find shelter for yourself, the next best thing is to keep your enemy away from shelter.'"

"Kit and his soldiers went into camp with us—a dark camp. They made their supper on dried buffalo-meat. There was no wagon with their party. Their camping outfit and supplies were carried on pack-horses. When the men were through eating and ready for bed, I inquired:

"Kit, what do you think? Will the red boys dare to attack us, now that your party have come? I didn't have a doubt that they would until you reinforced us."

"No telling for certain, Mack. But ten to one they're strong enough to attack our combined outfits. If they think they are they will. And you can count on it that they'll make things red-hot for us if they do once turn loose!"

"Yes, I rather guess they will, Kit," I said. "I've been in several skirmishes since I first fought the plains, but I'm a mere novice at Indian-fighting compared with you. You take full command of the camp. My men and I put ourselves under your orders."

"All right," he answered. And then he proceeded to arrange things to suit himself. Some additional guards were put out; and after that the other men, both soldiers and my boys, lay down on their blankets around the wagon. Every man of us slept in his clothes, and had his gun and six-shooters and ammunition where he could clap hands on them at a second's notice. Kit stretched himself out with his men, but I climbed back into the wagon to my bed with Santiago.

"Pretty soon I dropped asleep again. Kit and his followers had arrived some time between nine and ten o'clock, I should guess; and we all slept undisturbed till an hour or two past midnight."

"When I awoke, rifles were cracking around us. As I bounced up in bed, two or three bullets cut through the wagon-sheet just above my head. The white canvas made a good target in the dark."

"Santiago was awake, too, and very much excited. We both grabbed our weapons, and you can take my word for it, I guess, that we didn't waste any time getting out of that wagon."

"The guards, I soon learned, had been fired on and driven in. Rifles were still popping away on every side, and Kit was giving his orders:

"Down with you, boys, flat on your bellies! Put your saddles in front of you, and rest your rifles across your saddles! Look sharp, and every time you see a flash, split it with a bullet!"

"As you can easily guess, we were all glad enough to flatten ourselves down as flat as possible, and to make ourselves as nearly invisible as we could. In a very few moments every mother's son of us was lying stretched out behind his saddle, and we were exchanging shot for shot with our unseen enemies."

"It was just after we had all got ourselves in position that I was guilty of a piece of rashness that came in an inch of costing me my life."

"My little saddle-mule, Charlotte, stood lariatied out in front of where I was lying. In fact, she wasn't more than twenty steps from the muzzles of our guns. Being between two fires, she would, as I well knew, stand every chance of stopping a bullet, either going or coming. So up I bounced, thinking that all the men saw me, and ran out to fetch her away."

"Just as I stooped to unfasten her lariat from the stake she was tied to, a rifle cracked and flashed behind me, and a bullet hissed by not many inches above my head! One of Kit's men had mistaken me for a Pawnee, and had fired point-blank at me! And if I hadn't stooped just when I did, he'd have laid me out cold, too."

"Hey there! Let up with that, will you?" I yelled. And I jerked the lariat loose and hurried the mule back to the wagon. There I tied her to a wheel. The men were lying in a good-sized circle, with the wagon for a center, and most of them were several yards out."

"As soon as Charlotte was fastened, I gladly dropped down and lay behind my saddle again. Up till now not many Indians had been engaged in the attack, apparently; but their firing soon grew faster till rifles were cracking constantly, and all around the camp. Most of the Pawnees' shooting was too high to harm us. But their bullets passed over our heads with a spiteful whing-whing. Many of them struck the wagon-bed, and sometimes one would flatten itself against a saddle."

"Of course we tried to reply to every shot. Our guns were only muzzle-loaders, and couldn't be fired as fast as the modern rifles can. With the exception of the revolver, all the improved weapons of today have been invented since then. But our enemies, the Pawnees, were armed with the same kind of cap-and-ball guns, most of them—those not armed with bows and arrows; and they had no advantage of us in that respect. In fact, I don't think their weapons were as good as ours. And besides, they didn't seem to understand the necessity of keeping a rifle clean. For that reason, if for no other, they were never as good shots with the white man's weapon as the white frontiersman was."

"**L**IKE ourselves, the Pawnees seemed to be lying on their faces. And they kept hid in the grass as much as possible. There was no moon, but the starlight was sufficient to make objects dimly visible at a good distance away. As a rule we had no guide in firing except the flashes from the redskins' guns. Occasionally, though, we caught a glimpse of a dark figure skulking along, and then every man that saw it took a pop at it."

"For an hour and longer the battle went on. All around the camp flashes kept spotting the darkness. Those flashes reminded me of big lightning-bugs flashing their signals; and the constant popping of the rifles made me think of popcorn popping in a hot skillet. But at last the firing slackened, and a little later it ceased altogether. The Pawnees probably hadn't counted on so vigorous a resistance."

"Of course we didn't know whether they'd thrown up the job for good, or only to rest and take a fresh start. Or maybe they wanted to make us think they'd gone, and then catch us off our guard. So we lay right there behind our saddles till broad daylight. By that time not an Indian could be seen anywhere, or the sign of an Indian."

"Now we looked about to learn what damages we'd suffered. But a single man had been hit at all. One of Kit's soldiers had a bullet in his foot. But even that wound was not serious. Our animals had fared worse. Two horses belonging to Kit's party and one of my mules had been killed outright, and another mule of mine wounded. The wounded mule was able to travel, though, and soon got well. Both Kit and I had some spare animals along, and we were not seriously inconvenienced."

"Considering the number of shots fired at us we had certainly escaped very lightly. My wagon was scarred with bullets and, I believe, had a few arrows sticking in it. The canvas cover had suffered worst. It was shot full of holes—fairly riddled, in fact. That white cloth had been about the only thing the red riflemen could see to aim at back where they lay. And, luckily for us fellows lugging the ground, it had received their main fire. We had come out of the battle much better than any of us had expected to come out."

"How many of the Pawnees had been killed or wounded we had no way of knowing for certain. But there was good reason to believe they had suffered."

(Continued on page 31.)

Thousands will
attend Rumely
**POWER
FARMING
SCHOOLS**
in their home towns this winter

Eastern Market Review

THE week was an eventful one on the produce market. The first killing frost was reported in the nearby sections, a kosher meat strike in New York boosted the prices of live poultry and cooler weather generally helped the market situation.

The approach of the Halloween festivities brought an increased demand for pumpkins and with the rather light crop this season, prices were high. Small pumpkins sold at around 40¢ per bushel with medium sized ones suitable for Jack O'Lanterns bringing about a quarter apiece. Some of the produce stores resembled a county fair with mammoth pumpkins set in rows. A few of these were so large that it required two men to carry them out to the drays.

The boycott on kosher beef in New York turned this trade to live poultry. Fowls were in good demand and Leghorn chickens sold well. Broilers and pullets were scarce and in demand. A few live turkeys arrived and sold readily around 45¢.

Thanksgiving is not far distant and growers and dealers are studying the turkey situation. According to all reports available there will be enough to go around, as the crop is somewhat larger than last year. The Department of Agriculture estimates a crop of 3.6 per cent larger than last year. The southern states report a somewhat lighter crop, but in all other important producing sections, except Pennsylvania, it is larger. The market prospects are uncertain. Some of the dealers believe that if high prices prevail at the opening of the market it will bring out large quantities of birds and a slump will result, others, more optimistic, believe that prices will not be any lower than last year.

Eggs Dragg

The egg market was draggy in the East, especially for average quality stock which constitutes the bulk of the mid-western receipts. The market for eggs of good quality was active and the supply lighter. Shipments from nearby sections to the New York and Philadelphia markets were at a low point but judging from the heavy percentage of pullet eggs received, the dealers look for an increase in the next few weeks. Nearly whites, at the close of the week, were bringing about 64¢ per dozen in Philadelphia, while mixed colors sold at around 58¢. Hensy eggs commanded substantial premiums but there were not enough offered to warrant a quotation. The recent developments in the egg market indicate that the consumer is willing to pay the price but the quality must be there. In New York nearby eggs were not generally of high quality. Receipts indicated that poultrymen had been holding their eggs to secure full cases. The best mixed colors sold at about 47¢ and selected extra whites at 64¢ and 68¢.

Apples Show Improvement

The apple market showed some improvement along toward the close of the week. This was partly due to lighter offerings as many growers have been disappointed with recent prices and were holding their stock off the market. This was true in both Philadelphia and New York. Dealers believe that if they can clean up the accumulation of drops and ordinary stock the market will improve. Apple shipments continue heavy with eastern sections shipping around 3,000 cars a week. Motor truck receipts of Stayman, Rome and Greening sold mostly at \$10.15 per bushel in New York. Practically all varieties, except Ben Davis, sold mostly at 45¢ per bushel in Philadelphia, although exceptionally fancy lots were quoted at 50¢ and 51¢.

The New Jersey Bureau of Markets has started a new service of reporting apple sales at the farm. This is particularly to benefit those growers who are not well represented by the market. It is hoped that the increase of motor trucks has brought many buyers and speculators to the farm and the plan is to collect a report of actual sales on the farm by leading growers and to distribute this information to those that can use it profitably.

The Potato Situation

The potato market was inactive during the week and while there was no striking price changes in the city markets prices at shipping points generally averaged about 5¢ per hundred pounds lower. Shipments from all sections are running con-

siderably lighter than last year despite the heavier crop. Bulk Green Mountains were selling at about 60¢ per hundred pounds f. o. b. Maine shipping points. The situation in New York state showed a little improvement at the close of the week with round whites quoted at \$1.40 to \$1.45 per 150-pound sack f. o. b. Pennsylvania round whites sold mostly at \$1.75 per 150-pound sack in the leading eastern markets, but Washington and Pittsburgh reported somewhat higher prices.

The dull condition of the sweet potato market during recent weeks caused a sharp drop in shipments. The lighter supplies on the market and the cooler weather increased the demand and prices were slightly higher. This was particularly true with the better grades. Red sweets were quoted up to 85¢ per bushel in Philadelphia for the first time in several weeks, and the best yellows sold at 75¢. Stock that had been moving for about 50¢ advanced to 60¢. The first killing frost arrived Saturday and the dealers state that their shippers had practically everything under cover.

Grape prices advanced throughout the week due undoubtedly to the cooler weather.

er. The demand was good and receipts moderate. Spinach fluctuated almost from day to day according to the size of the supply. Pennsylvania wired celery showed a firmer tone toward the close of the week and growers believe that conditions will improve during the next few weeks.

MILK FEDERATION OFFICERS

Closing their twelfth annual meeting in Memphis, Tennessee, on October 18, delegates attending the sessions of the National Cooperative Milk Producers' Federation elected Harry Hartke, of Covington, Kentucky, president, succeeding Judge John D. Miller, of Susquehanna, Pa., who for six years has been the head of the organization and who desired to retire. Mr. Hartke is vice-president of the Cooperative Pure Milk Association of Cincinnati, a cooperative organization handling the greater part of Cincinnati's milk supply. For several years he has been a vice-president of the National Federation.

Delegates re-elected C. E. Hough, manager of the Connecticut Milk Producers' Association, Hartford, Conn., as first vice-president; John Brandt, Litchfield, Minn., president of the Land O'Lakes Creameries, Inc., Minneapolis, second vice-president; Frank P. Willis, Ward, Pa., former president of the Interstate Milk Producers' Association, and Charles W. Holman, Washington, D. C., secretary.

Livestock Markets

PITTSBURGH Cattle

With about 60 carloads in the pens trade was fairly active, demand for beef showing some improvement during the past week. Steers were steady to a quarter higher, while other classes showed little change. No fed steers were on sale and the quotations on them are estimates. Good fat grassers brought \$12.50 to \$12.75 at \$12 and only fair fleshy killers \$10.50 to \$10.75. Common light steers sold at \$9.50 to \$10, and some little inferior steers at \$8.50 to \$9. A few carloads of heavy steers, rather plain, sold at \$11.00 to \$12, looking cheap as compared with lighter cattle. A pair of choice heifers brought \$12.50, but such as are usually rated as good went around \$11, with fair sort \$10 to \$10.25 and others on down. Few aged fat cows sold above \$9, but something young and of the heavier style would command more. Canners brought \$5.25 to \$5.75 largely. Fresh cows show little change, not many good enough to sell above \$100 coming to market. Bulls were about steady, with good handy and weighty butcher kind \$9.75 to \$10, decent butchers \$8.50 to \$9.50, and bolognas \$8.50 to \$9. Buyers were in for stockers and feeders but found few that would suit them.

Choice grain-fed steers, 1,200 lbs. or over \$13.50 to \$14.50
Good to choice grassers \$12.75 to \$13.25
Fair to good, do. \$12.00 to \$12.75
Choice heavyweight steers \$11.25 to \$12.00
Good butcher steers, 1,000 to 1,150 lbs. \$12.00 to \$12.50
Fair to good, do. \$11.50 to \$12.00
Ordinary to fair, do. \$10.50 to \$11.50
Common, do. \$9.50 to \$10.00
Good light butchers \$11.00 to \$11.75
Fair to good light steers \$9.50 to \$10.75
Common to medium, do. \$8.00 to \$9.00
Feeder \$9.00 to \$11.75
Stockers \$7.00 to \$10.00
Good heavy bulls \$9.75 to \$10.00
Choice handy butcher bulls \$9.25 to \$9.75
Good handy bulls \$8.75 to \$9.25
Fair to good bulls \$8.00 to \$8.50
Common to fair bulls \$7.00 to \$8.00
Inferior bulls \$11.00 to \$11.25
Choice fat heifers \$10.50 to \$11.00
Good to choice heifers \$9.50 to \$10.50
Fair to good heifers \$8.00 to \$9.50
Thin light heifers \$7.25 to \$9.50
Choice fat cows \$8.75 to \$9.25
Good to choice fat cows \$8.00 to \$8.75
Fair to good cows \$7.00 to \$8.00
Canners and cutters \$5.00 to \$6.00
Fresh cows, calf at side \$5.00 to \$15.00

Hogs

Monday's supply was about 40 double-deck carloads. The weather was favorable to pork consumption and with a broader demand sellers were able to advance prices \$1.25 per cwt. Bulk of the hogs sold at \$9.75 to \$9.90, with heavy weights mainly \$9.00, mixed \$9.50 to \$9.85 and a few heavy weights around \$9.75. Extreme weights would not bring that much, but few of that class are coming. Good weighty light

Yorkers were worth \$9.00 to \$9.75 and pigs \$9.00 to \$9.50 according to quality and condition. The hogs are coming better right along as they are showing the effects of corn.

Heavy wts., 250 lbs. or over \$9.00 to \$9.80
Heavy mixed \$9.00 to \$9.85
Medium wts., 180-200 lbs. \$9.00 to \$9.85
Heavy Yorkers, 165-180 lbs. \$9.00 to \$9.75
Light Yorkers, 125-150 lbs. \$9.00 to \$9.50
Pigs, 100-110 lbs. \$8.00 to \$8.50
Roughs \$8.00 to \$8.50
Stags \$6.00 to \$7.00

Calves

Receipts were light on Monday, only 600 head. Best veal calves brought \$17 per cwt., fair to good \$12 to \$15 and common \$7 to \$10.

LANCASTER Cattle

Lancaster, Oct. 29.—Receipts light. Market active at steady prices. Stockers and feeders steady to 25¢ higher.

Good steers \$13.25 to \$14.00
Medium to good \$12.00 to \$12.25
Common to medium \$12.00 to \$13.00
Choice heifers \$10.00 to \$12.00
Good to choice \$9.00 to \$10.00
Common to medium \$7.00 to \$8.75
Good to choice cows \$9.00 to \$10.50
Common to medium \$8.00 to \$9.50
Good to choice bulls \$9.50 to \$12.00
Common to medium \$7.00 to \$9.50
Good to choice fat cows \$8.00 to \$9.25
Fair to good cows \$7.00 to \$8.00
Canners and cutters \$5.00 to \$6.00
Fresh cows, calf at side \$5.00 to \$15.00

MISCELLANEOUS PRODUCE

Butter.—Creamery prints, 92 score, 55¢; 55¢; tubs, 54¢ to 54½¢; nearby tubs, 51¢ to 52¢.
Poultry.—Heavy hens, 29¢ to 31¢; Leghorns, 21¢ to 24¢; springers, 29¢ to 31¢; roosters, 18¢ to 19¢; ducks, 23¢ to 25¢; geese, 20¢ to 23¢; pigeons, 40¢ to 50¢ per pair.
Eggs.—Fresh, select, 53¢ to 55¢; current receipts, 36¢ to 38¢.
Potatoes.—Per 150-lb. sack, Pa. & N. Y. whites, \$1.87 to \$1.90; Mich. Russets, \$1.75 to \$1.85.
Apples.—New stock, bu. basket, Hubbardston, \$1.35; No. Spy, \$1.50; Stayman, \$1.35 to \$1.50; Grimes Golden & Rome, \$1.20 to \$1.35; Ind. whites, \$1.40 to \$1.50.
Onions.—Per 100 lbs., Ind. & Mich., yellows, \$3.50 to \$3.75; Ind. whites, \$4.00 to \$4.25.
Pears.—Bartlett, per bu., \$2.75 to \$3.00.
Grapes.—N. Y. Concord, per 12-qt. basket, 55¢ to 60¢.
Mushrooms.—Pa., 3 lb. basket, \$1.60 to \$1.80.
Cauliflower.—N. Y. crates, \$1.50 to \$1.75.
Butter.—Creamery, fancy, 48¢ to 48½¢; retail and dairy prints, 33¢ to 38¢; packing stock, 33¢; butterfat, 46¢ to 40½¢.
Eggs.—Selected white, 47¢ to 48¢; Md.-Pa. nearby firsts (loss off), 42¢; nearby current receipts, 40¢; western firsts, 40¢ to 42¢; southern, 40¢.
Live poultry.—Hens, old, 4½ lbs. and over, 29¢ to 30¢; small to medium, 22¢ to 24¢.

19¢; ducks, 23¢ to 25¢; geese, 20¢ to 23¢; pigeons, 40¢ to 50¢ per pair.

Eggs.—Fresh, select, 53¢ to 55¢; current receipts, 36¢ to 38¢.

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Eggs.—Selected white, 47¢ to 48¢; Md.-Pa. nearby firsts (loss off), 42¢; nearby current receipts, 40¢; western firsts, 40¢ to 42¢; southern, 40¢.

Live poultry.—Hens, old, 4½ lbs. and over, 29¢ to 30¢; small to medium, 22¢ to 24¢.

19¢; ducks, 23¢ to 25¢; geese, 20¢ to 23¢; pigeons, 40¢ to 50¢ per pair.

Eggs.—Fresh, select, 53¢ to 55¢; current receipts, 36¢ to 38¢.

Potatoes.—Per 150-lb. sack, Pa. & N. Y. whites, \$1.87 to \$1.90; Mich. Russets, \$1.75 to \$1.85.

Apples.—New stock, bu. basket, Hubbardston, \$1.35; No. Spy, \$1.50; Stayman, \$1.35 to \$1.50; Grimes Golden & Rome, \$1.20 to \$1.35; Ind. whites, \$1.40 to \$1.50.

Onions.—Per 100 lbs., Ind. & Mich., yellows, \$3.50 to \$3.75; Ind. whites, \$4.00 to \$4.25.

Pears.—Bartlett, per bu., \$2.75 to \$3.00.

Grapes.—N. Y. Concord, per 12-qt. basket, 55¢ to 60¢.

Mushrooms.—Pa., 3 lb. basket, \$1.60 to \$1.80.

Cauliflower.—N. Y. crates, \$1.50 to \$1.75.

Butter.—Creamery, fancy, 48¢ to 48½¢; retail and dairy prints, 33¢ to 38¢; packing stock, 33¢; butterfat, 46¢ to 40½¢.

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WOMEN WILL OFTEN ASK
"How do you get this flavor in your biscuits?"

At first glance they seem much like any good-looking biscuits, but there is a real difference. You'll notice it with the first taste—a delicate, unmistakably richer flavor. It's one of those little things that mystify a guest—and give you a reputation for wonderful cooking. It's worth having—that little bit of added flavor in your baked foods that makes your table more of a treat to your family and your friends.

It's so easy to have it, too—simply be sure you use the right flour. Pillsbury's Best, like most good flour, is milled and tested every hour to make baking sure and easy. But more than that, Pillsbury's Best is milled and tested to make things taste better. This additional richness in flavor is important. The food editors of some of the leading women's magazines, who have made a life-long study of baking, say that



for finer flavor in everything you bake—
 cakes, pastry, biscuits, bread.

Pillsbury's Best Flour

PENNSYLVANIA FARMER

Consolidated with
 PENNSYLVANIA STOCKMAN and FARMER

November 10, 1928

Established 1877



Pittsburgh

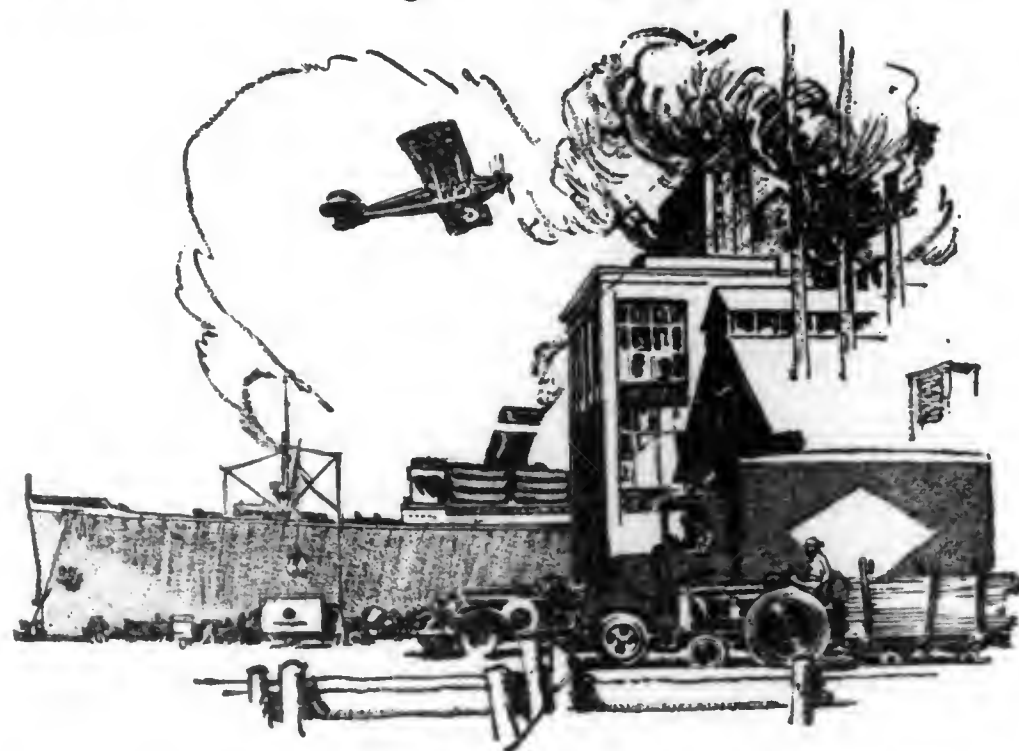
Harrisburg

Philadelphia

Oil facts for farmers

(No. 8)

These six oil facts mean more to you than
a hundred fancy promises



1—Mobiloil is recommended by more automobile instruction books than any 3 other oils combined.

2—31 farm tractor manufacturers recommend Mobiloil.

3—Mobiloil is used by more automobile engineers than any other oil.

4—Mobiloil has proved its superiority through the hard test of aviation use—lubricating Col. Lindbergh's engine for over 42,000 miles, and protecting the engines of countless other fliers who have made aviation history.

5—The Leviathan, the Majestic, the Mauretania and many of the other great ocean liners are lubricated with Gargoyle Marine Oils, sister products to Gargoyle Mobiloil.

6—Leading manufacturing plants throughout the country use our oils.

The refiners of Mobiloil lead the world as lubrication specialists. Since they have had more experience with lubrication problems it is only natural that they can make the oil that is the *cheapest for you to use*.

How to buy

For a season's supply we recommend the 55-gallon and 30-gallon drums with convenient faucets. On these containers your Mobiloil dealer will give you a *substantial discount*.

Your dealer has the complete Mobiloil Chart which tells the correct grade of Mobiloil for your car, tractor and truck. You are always sure with

Make this chart your guide

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars, motor trucks and tractors are specified below. The grades of Gargoyle Mobiloil are indicated by the letters shown below. "Arc" means Gargoyle Mobiloil Arctic.

Follow winter recommendations when temperatures from 32° F. (freezing) to 0° F. (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford, Model T, use Gargoyle Mobiloil "E").

If your car is not listed here, see the complete Chart at your dealer's.

NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS	1928		1927		1926		1925	
	Engine	Winter	Engine	Winter	Engine	Winter	Engine	Winter
Autocar	A	Arc	A	Arc	A	Arc	A	Arc
Buick	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Chandler Special Six	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler 4 cyl.	A	Arc	A	Arc	A	Arc	A	Arc
Imperial 80	BB	Arc	BB	Arc	BB	Arc	BB	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Diamond T	A	Arc	A	Arc	A	Arc	A	Arc
Dodge Bros.	A	Arc	A	Arc	A	Arc	A	Arc
Durant	A	Arc	A	Arc	A	Arc	A	Arc
Eases	A	Arc	A	Arc	A	Arc	A	Arc
Federal 86, 106, 126	A	Arc	A	Arc	A	Arc	A	Arc
UBG	A	Arc	A	Arc	A	Arc	A	Arc
X2, T6W, T6B	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Ford A & AA	A	Arc	A	Arc	A	Arc	A	Arc
T & TT	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Franklin	BB	Arc	BB	Arc	BB	Arc	BB	Arc
G. M. C. T10, T20	A	Arc	A	Arc	A	Arc	A	Arc
T40, T50	B	A	B	A	B	A	B	A
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Garford	A	Arc	A	Arc	A	Arc	A	Arc
Graham Bros.	A	Arc	A	Arc	A	Arc	A	Arc
Hudson	A	Arc	A	Arc	A	Arc	A	Arc
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc
Indiana 611, 6111	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
International 19, 43	A	Arc	A	Arc	A	Arc	A	Arc
61, 101, 74C, 54DR	A	Arc	A	Arc	A	Arc	A	Arc
54C, 74DR, S, SD	BB	Arc	BB	Arc	BB	Arc	BB	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Mark	A	Arc	A	Arc	A	Arc	A	Arc
Nash	A	Arc	A	Arc	A	Arc	A	Arc
Oakland	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc
Overland	A	Arc	A	Arc	A	Arc	A	Arc
Packard	A	Arc	A	Arc	A	Arc	A	Arc
Pontiac	A	Arc	A	Arc	A	Arc	A	Arc
Rowell model	A	Arc	A	Arc	A	Arc	A	Arc
Republic 11X, 19, 20	A	Arc	A	Arc	A	Arc	A	Arc
25-35	BB	Arc	BB	Arc	BB	Arc	BB	Arc
S-25W, 25-W	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Service	A	Arc	A	Arc	A	Arc	A	Arc
Star	A	Arc	A	Arc	A	Arc	A	Arc
Stewart 9, 21, 21X	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Studebaker	A	Arc	A	Arc	A	Arc	A	Arc
White 15, 15A, 15B	A	Arc	A	Arc	A	Arc	A	Arc
20, 20A	A	Arc	A	Arc	A	Arc	A	Arc
(other models)	A	Arc	A	Arc	A	Arc	A	Arc
Willis Knight 4 cyl.	BB	Arc	BB	Arc	BB	Arc	BB	Arc
6 cyl.	BB	Arc	BB	Arc	BB	Arc	BB	Arc
TRACTORS								
Allis Chalmers 12-20	BB	A	BB	A	BB	A	BB	A
15-25	BB	A	BB	A	BB	A	BB	A
(other models)	BB	A	BB	A	BB	A	BB	A
Case 22-40, 25-45	B	A	B	A	B	A	B	A
40-72	BB	A	BB	A	BB	A	BB	A
(other models)	BB	A	BB	A	BB	A	BB	A
Caterpillar Combine	B	A	B	A	B	A	B	A
Harvester 32	B	A	B	A	B	A	B	A
(other models)	B	A	B	A	B	A	B	A
Cletrac	B	A	B	A	B	A	B	A
E. B.	B	A	B	A	B	A	B	A
Fordson	B	A	B	A	B	A	B	A
Hart Parr	B	A	B	A	B	A	B	A
John Deere	B	A	B	A	B	A	B	A
McCormick Deering	B	A	B	A	B	A	B	A
Oil Pull	B	A	B	A	B	A	B	A
Twiss City 12-20	B	A	B	A	B	A	B	A
20-35	B	A	B	A	B	A	B	A
(other models)	BB	A	BB	A	BB	A	BB	A
Watts	BB	A	BB	A	BB	A	BB	A



Look for the red Gargoyle trade-mark on the Mobiloil container

The World's Quality Oil
Mobiloil
VACUUM OIL COMPANY

Farm Facts and Fancies

By ALVA AGEE

Putting the Hammer Down

MY little neighbor, three years old, is very sensitive to noise—at least that which is not of her making. A carpenter had been called to do some work, and the hammering was beyond endurance, as evidenced by the shrill plea, "Put down that hammer." When this issue of the Farmer appears, the results of the election will be known and, for one, I shall be glad the time has come for each side to put down the hammer. This knocking is not consistent with deliberation in a democracy. Some millions of us have definite ideas of



what the outcome of the election will be, and some are sure that the majority of electoral votes will be unusually large, but they differ as to the side getting it. Be that as it may, we have four years to live together and to legislate for the good of the country, and why not put the hammer down and give our country a chance to do its best for all of us?

Helping Agriculture

I can list some legislative acts of recent years that, as probably all thoughtful men agree, have favored agriculture. So far, so good. Most thoughtful men know that more should be done, if that is practicable, and they believe that more things are practicable. So far, so good. If we are together to this point, and if the majority has entrusted the problem to one party, let's give it a chance. Why let obstruction delay the coming of any plan of the winners?

I write before we know who are charged with the duty of doing something but, whoever they are, the country will have given them a mandate to see to it. Let's try whatever the majority in this country endorse, and let's have it as quickly as is reasonable.

Why let it be held back by obstructionists? A demonstration will give a basis for discussion and intelligent decision at another election, but most important of all is any good that can come from any policy put into action. Let's have that benefit, be it small or great. There is no nourishment in obstruction after the people have told an appointed leader to go ahead and do what he has in mind. This is a democracy; why not let it function?

Some station tests have given results indicating that we incline to place too high a cash valuation on stable manure. Commercial fertilizers give us the needed plant food in a relatively cheap form. It would appear on the surface that

cash profit above the market value of the feed, or one may as well take the easier way.

I should be impressed by this view if I had not seen so many farms. There are some that have been put and kept in a highly productive state without livestock, but it is the rule that the man who feeds on the farm has his land more productive than the one who sells his grain and hay. Probably a survey would show that such is the rule in nine farming communities out of every ten.

Everything else being even, the man who keeps livestock and takes care of the manure has a soil in better condition than the one who depends solely on commercial fertilizers and sods. Not necessarily so? That is not my point. Taking us as we are, and land as it is, the young man who adopts the rule of those who do not like to sell feeding-stuff off the farm is apt to be best off in later years.

Stealing Farm Products

A factory can be locked up at night, but the grower of fruits and vegetables within a radius of twenty miles of a city has a big problem before him, and matters are growing worse. The automobile and truck make stealing easy, and when a time of some unemployment comes the raids on farms will grow worse.

Driving out of Los Angeles through citrus fruit sections I saw some dependence on high woven-wire fences. They are costly and are in the way. Farther out from the city the danger of loss by theft appears to be less, and the fruit hangs open to thieves. Possibly people out for pleasure—and incidental profit—take more than those who are in the business for what they can get out of it.

When I was a boy and my father gave the preacher a few bushels of potatoes in the fall, the good man was thankful, but it is a question whether he thought that they really had cost the producer anything in particular. A lot of city people feel that way about farm products, and especially those growing on trees.

A practical means of affording crop insurance should be worked out, if possible. The very wealthy "sympathizers" with agriculture and the insurance experts should find some basis for reducing the hazard in food production. So far little has been done except in case of some hazards wholly outside of human control. Probably when fire insurance was proposed it was believed that men would take undue advantage of the protection so that the scheme would not work, but it does work. This fear holds back crop insurance, but when anything is badly needed it usually finds a way of coming. Weather uncertainty is the great handicap in farming.

A Bushel from One Spud

THIS is a picture of Martin Carmichael of Marshall county, W. Va., and a bushel basket of potatoes that he raised from one tuber.

The variety was Burpee's Early planted May 26, 1928. When dug in September the yield was the amount shown in the picture—a bushel basketful of tubers.

Who can beat this potato yield? Marshall county is rapidly becoming

The Sturdiest Rubbers you ever wore FOR HARD, HEAVY DUTY

Top Notch Topeka and Tacoma Rubbers will outwear two pairs of ordinary rubbers. We make them especially for outdoor, hard-working men—put into them more rubber and tougher rubber to give them double resistance against hard service.

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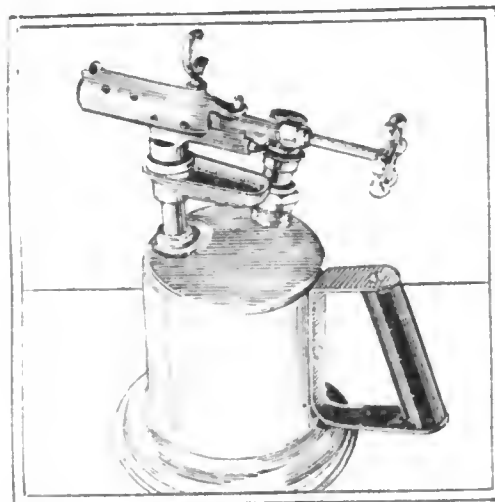
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Preheating fuel for camp stove
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Soldering automobile with solder
Melting metals
Treating all beehives (inside)
Burning weeds while clearing land
Repairing gasoline stove cans
Loosening rusty bolts and nuts
Soldering electric wiring
Loosening old spouting
Killing tree termites
Starting fires during forest fires
Starting fires in cold weather
Heating for bending piping
Loosening old articles
Bend material
Printed marks on cottages
Use to light at night when soldering
Cleaning gutters in sinks
Starting fires in furnace
Singe and fowl poultry
Heating water for grating trees
Melting all water to make gum to
put in driving belts
Welding
Leak and is bleeding
Shaping and plates (small)
Loosening screws in wood or machine
Soldering to facilitate removal
For soldering and for shrinking collars
For other parts on small shafting
Cleaning and

A BLOW-TORCH is a good tool to have around any time in the year. But right now it can easily save you its cost in a week or two—even in one bitter cold day!

If you can get your blow-torch on the job in time to keep a pipe from freezing up, you'll pretty near save the price of the torch right there.

Perhaps you do county work with your tractor during the winter months—plowing out roads. Or you keep it working around the farm, saving wood for yourself, or on contract for your neighbors; doing all sorts of useful jobs.

You'll save yourself a lot of time and work starting up your tractor on cold mornings, if you heat up your intake manifold with your blow-torch. That makes the kerosene vaporize quickly, so that the spark will ignite it. Some men also warm up their crankcase oil with it, particularly when cold weather has made the oil so stiff you can hardly turn the engine over.

All these uses for blow-torches have come out in our interviews with farmers. We've sold them a great many Clayton & Lambert blow-torches, and we thought it would interest everybody to find out the various uses they're put to on the farm, and publish that list.

We'd suggest you give your blow-torch a thorough tryout right soon and satisfy yourself it's in good working order. When

you want to use it is no time to find out it's not working right. And if you find you need a new one, ask to see a Clayton & Lambert torch next time you're in town. You can tell it's a Clayton & Lambert quick enough by the red handle on it.

You can't buy a better torch than a Clayton & Lambert. It's the most popular line in the world. Because it gives better performance, and keeps on doing it longer. That performance is the result of our developing a great many improvements—patented, so they're exclusive to Clayton & Lambert.

Try the hardware store or the general store—and if by some chance neither of them have Clayton & Lambert torches, drop us a line. We'll see to it you're supplied quickly.



CLAYTON & LAMBERT MFG. CO.

An American Editor Abroad

Tan Shoes Turn Shabby in Europe

ONE of the things Americans miss in Europe is the shoe-shiner, particularly so if they wear tan shoes. The universal custom is to leave one's shoes outside the bedroom door every night for the "boots" to polish. That is all right for black shoes but the European has never learned how to clean and polish tan shoes. He simply shines the accumulated dirt into his travels lengthen. I went into a big railroad station in London to get a shine, but all I could find was a man with a little box. You stand on one foot while he polishes the shoe on the other, then you reverse. I had an idea that an American who could get the right to establish shoe-shining stands in British railroad stations would make a lot of money; but the darkey who does this work for Americans in Paris told me that two of his acquaintances had tried it and had gone broke. He said the English would not patronize such places. As for the French and other Continentals they shine their own shoes, he says. He explained that universal military service is the reason for this habit. Every young man must serve in the army, and one of the first things he is taught is to shine his shoes. That habit sticks to him all his life. This darkey declared that there are only two professional shoe-shiners in Paris, and that neither of them can make a living by that work except during the tourist season, when plenty of Americans are in the city. He said also that he had "stabilized the shine" at two francs, charging that when a dollar would buy 48 francs; but a friend assured me that this darkey had earned no degree for veracity. So my report on this important subject may be lacking in accuracy. But wear black shoes to Europe or you will soon be wearing dirty ones.

The Labor Situation

Unemployment is a serious problem in England, Scotland and Ireland. It is not so in France. Few are necessarily idle, though wages are low and must remain so if the cost of living is kept down and French industries are to compete with those of other European countries. Emigration from England, Scotland and Ireland is common and the number of emigrants would be much larger if our country would expand its quotas. As it is many are going to the colonies and more would go if they had the means. In a few days thousands were enlisted in England to go to Canada to harvest the grain crops, though most of them had never done work of that kind.

France has endeavored to maintain a balance between jobs and men ever since the war. This by restoring the devastated areas and rebuilding their villages, cities and industries, by internal improvements of several kinds and by industrial development. The foreigner who goes to France to look for a job will be disappointed. Unless he has a card from the Minister of Labor he can't work at all. No cards are issued to foreigners as long as Frenchmen can be found who need jobs. Universal military service employs the 21-year-old men who are physically fit. They go into the army at that age and must serve for 18 months, during which time they receive 25 centimes per day, or almost a cent a day in our money! This helps to solve the problem of unemployment, but it must be a tremendous economic disadvantage to any country to sacrifice so much of its physical energy for the sake of future protection.

This reminds me that we can hardly

sees soldiers, mainly by the young men who are doing their military service but also regulars, some of these French, some turbaned Moslems from Africa, some negroes from Senegal, all classes under the command of officers of the regular army. Why should a country which has suffered so much from war, which has an enormous and unpaid debt incurred by war, which is burdened by high taxation as a result of war, which expresses so much horror of war and so ardent a desire for peace—why should such a country maintain a large and costly military establishment?

Fear of Invasion

Natural questions, and the answer is of the same class. Let me give it in the words of a Frenchman, as nearly as I can, when I asked him those questions. He said, "We desire nothing but peace, we are all for peace, but consider: I have a thousand acres of land which I farm, I have seven children. Twice in my own lifetime I have seen my country invaded by a foreign enemy. My ancestors saw the same thing. My children may see it, for the fertile fields of France will always be wanted by somebody. An army is our only possible protection against such things. How would you and your countrymen feel about it if their land had been invaded twice in their own lifetime and in many generations before? Wouldn't you want an army to protect you just as we do? And wouldn't you provide for protection even though you sincerely hoped that it would never be needed? But we fear that it may be needed again, and if it is ever needed it must be ready. An army must be trained—we can't wait until the day of need to provide it."

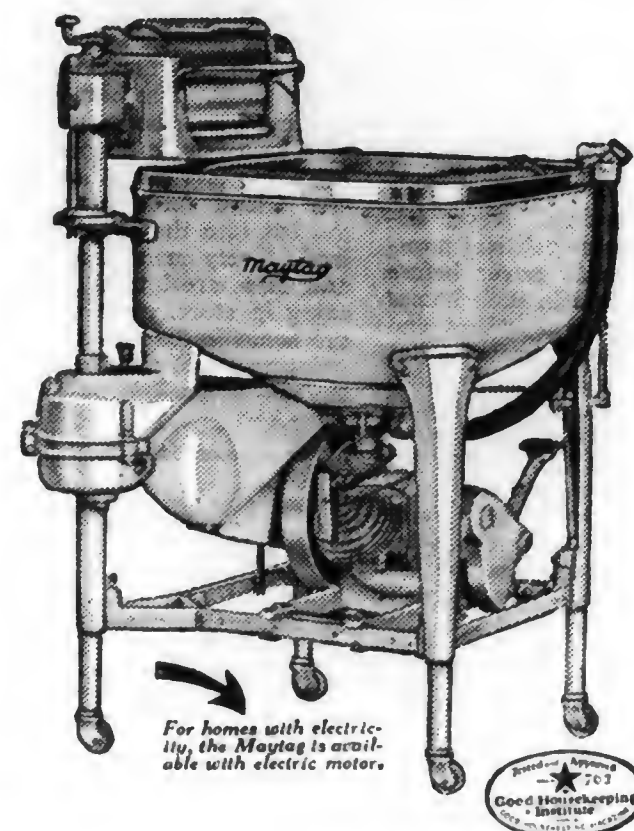
That, with more which I did not quote, shows how the French feel about it. And I think we would feel the same if we and our ancestors were French and exposed as the French are to being Americans and were as we are. I think the desire for continued peace is practically universal in France and naturally so, after the terrible losses and sorrows. But the army is regarded as an indispensable peace as much as a protection of war.

Agricultural Problems

There are two ideas about agriculture in France. Go to one of the French farmers is happily content with his living assured, a farmer for all he produces and the highest taxation imposed on any class. You will be informed that the French farmer wants the farmer's vote and is the farmer's displeasure, so is disposed to favor him in every possible way.

But there is another side to the story and it can be had of farmers. They admit that their direct taxes are not so heavy as are imposed on other classes but they cite their immense indirect contribution to the nation. All through the days of reconstruction, and this year, French farmers have been denied the privilege of exporting any of their products. They have been compelled to take whatever French consumers could and would pay, regardless of the cost of production. They say that if a French politician has been denied the right to export his products, he is not afraid of any such thing in the country, so to keep down the cost of living has favored the consumer at the expense of the producer of food. Moreover the cities impose the octroi—a sort of tariff collected at the city line—on everything the farmer takes to market, and so he helps to pay the city taxes as well as his own. Take your choice of these opposite

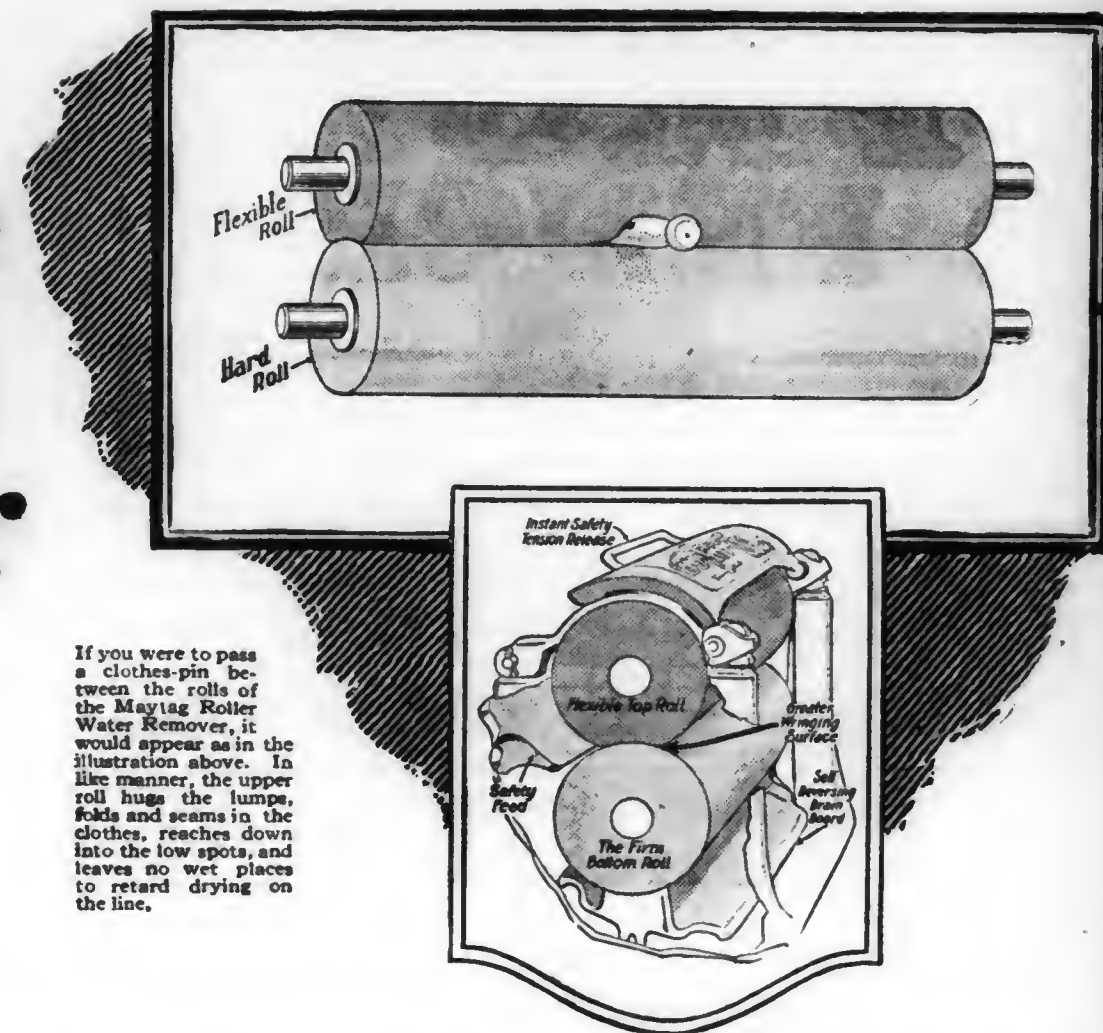
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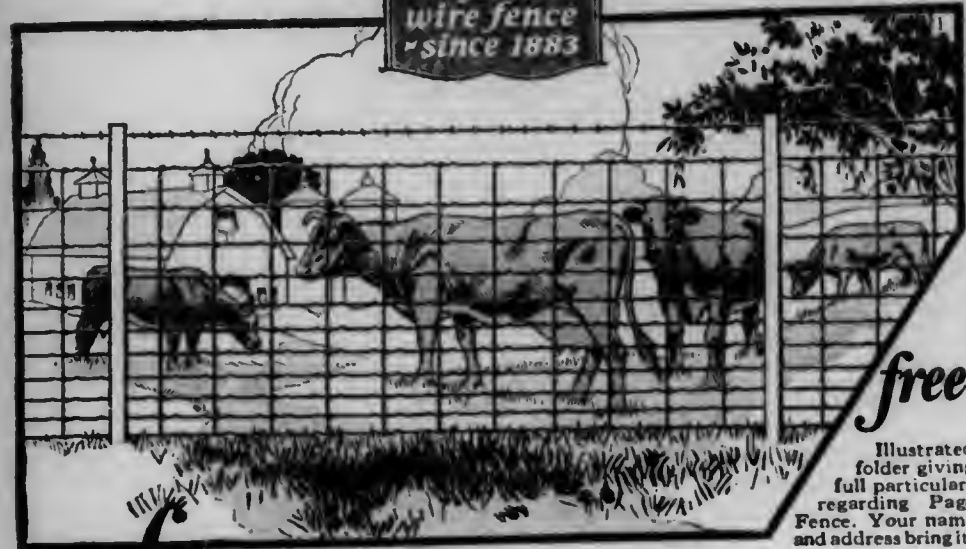


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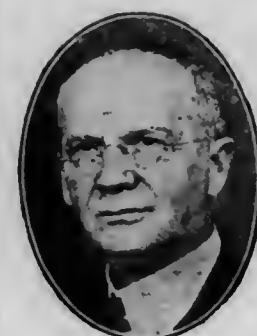
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NESHAMINY GARDENS
By R. P. KESTER

THE election will be over when this is read and no doubt the result will be known definitely. Not within my memory, possibly not since the Civil War, has the great mass of people I am so keenly interested in a national election. Never before has there been such an effort on the part of the leaders to suppress certain questions and set up others, only to find the voters were most interested in the questions which were taboo and cold toward those called the main issues.



The issues at stake touched the elemental nature of voters—personalities, religion, appetites, ambition, greed, economic prosperity, feelings of democracy and aristocracy, all these entered into the making of a campaign spirit which is usually lacking. Never before were such monster political meetings held, and certainly never before did so many people hear in their homes the voices of campaign speakers and the tumult of enthusiastic crowds. But after all, who knows how many votes were changed by all the arguments made? It is more than probable that most of the millions of voters, after the battle lines were once drawn, silently but surely aligned themselves according to their natures on the two sides and stayed there, uninfluenced by the weeks of campaign argument.

But in spite of the feelings that were engendered I have no doubt that the true American spirit will prevail after it is over, and that the result will be accepted quietly as the voters settle back to normal in thought and deed. America is known as a land where true sportsmanship exists. Although the game may be noisy, even boisterous, yet the vanquished are always willing to cheer the victors. There is so much to do in every line, and every one knows that no man, no party and no issue is big enough to stop progress in the building of the nation.

One of the advertising solicitors of Pennsylvania Farmer recently told me that he saw a page torn from a recent issue lying on the desk of a big business man in New York City. In referring to it the business-man said: "I have been reading the Neshaminy Garden column in your paper and I see that man Kester has been unable to raise any first-class sweet corn this year. I am going to write him and tell him how. I had excellent corn this summer." I shall be glad to get the letter and know how to raise good sweet corn in a season such as we had this year. There is no reason why a city business man might not be able to tell me a lot about farming that I do not know.

I frequently am surprised at the interest shown by town and city people in the things we are doing at Neshaminy Gardens. Possibly it is because I touch only on what everybody does and thinks. Another man, of whom I heard indirectly, said that he read it because he has had for years a secret longing to get out on a piece of land and be independent. "That," he said, "I don't agree with Kester's ideas in lots of things and I am sure that I would not make as many failures as he

I don't know whether the ability to get under the skin is a virtue or not. I remember my first acquaintance with midges. I had been out with others for blackberries and came home with a most uncomfortable, itchy feeling over my body. Upon making it known I was told that I was covered with midges. They are little, insignificant insects which sometimes infect berry patches and burrow into the skin of the pickers. But in spite of their insignificance they cause a lot of annoyance. There are people like that. They are not prominent nor outstanding, yet they are able to stir up activity in others.

The last man referred to above runs true to form. Usually, the people who are most confident they know how to do things are those who never tried to do them. The best essay on child-training I ever heard was prepared and read by a female inappropriate blessing fifty years old. I hope my unknown city friend finds his opportunity to get out into the country on a piece of land. Every man who has that desire, and there are lots of them, has something in store, not the least of which are some lessons in overcoming disappointment and failure. But it is worth the tuition fee.

Friendly Talks

By Edgar L. Vincent

WE do not think much of frog ponds. They are eyesores to the thrifty farmer; and I might say that they are also earsores, especially in the spring of the year when the dwellers of these pools send up their shrill notes all through the evening hours. Stagnant water, cat tails, sweet flag and weeds are the only output of these shallow reservoirs, and who looks upon them as anything more than a nuisance? If we can, we drain them and make them give place to gardens. If we cannot do that we try to fill them up and let the frogs go somewhere else to hold their concerts.

And we all know why we have these low "swales". It is because they have neither inlet nor outlet. The water which comes into them from the sky gets dead and stale. Nothing will drink it unless compelled to. Standing still gives us the frog pond.

Things Worth While

I have sometimes thought a good many farmers need better outlets or they will turn into human frog ponds. It is the farmer who every year, every day and every minute gives out something and every minute gets out something of the world a little better who escapes this fate. Give the reservoir a chance to run out and its water is always clean and pure. If we make our lives streams of constant advancement they will be blessings to the world.

And who of us wants to stand still? That is contrary to the way of the human heart. To improve, to do a little better this year than we ever did before, to rise a little higher in the scale of good farming and good citizenship—these are the things which make life worth while. And the grand thing about it is that every one of us can do it. The outlook before us is so bright that the only thing on our horizon

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IMPROVED IN STORAGE

LAST June the National Creamery Butter-makers' Association put into cold storage 221 tubs of butter. It was scored when put away and was again scored in October by the same experts. At the second scoring 93 tubs scored higher than at first, 27 tubs the same and 101 tubs somewhat lower. What improved the quality of those 93 tubs? We have always believed in cold storage and many years ago urged the public to quit cussing it and go to using it; but we have never been sufficiently sanguine to say that it would improve the quality of June butter.

END OF AN EXPERIMENT

NOVEMBER 1st came to an end the British government's famous but unsuccessful attempt to control and stabilize the rubber industry. The rubber market was wide open on that day but fluctuations in price were insignificant. Business had already put the price where conditions warranted and the change created no disturbance. This experiment in government control should teach a lesson long remembered but it will not, for those who favor such things never learn any better.

A HOG CHAMPION

THE Missouri hog champion marketed 85 pigs from 10 sows at an average weight of 222 pounds at the age of 180 days. He produced 100 pounds of hog with six bushels of corn and 30 pounds of tankage and oil meal at a cost of \$7.90. The pigs were cross-breds, Duroc sows and Poland-China boar. The record doesn't say whether they were "meat-type" hogs when they went to market but evidently they made money for the man who raised them. Can anybody beat the Missourian?

DEALERS IN PERISHABLES

BEFORE the United States Senate is a bill (1294) which provides that all who deal in perishable agricultural commodities in interstate commerce must take out a federal license. Penalties, including revocation of license, are provided for unfair or dishonest practice. That some legislation of this kind is needed is evident to any one familiar with the difficulties which confront the producers of one state in dealing with the crooks of another. Probably this bill goes too far when it attempts to regulate dumping, which is much more rare in fact than in fiction.

A STRIKE ENDED

FOR twelve days about two million orthodox Jewish people in New York and vicinity were practically without meat because 5000 Kosher butchers refused to continue to lay in the usual way. The strike was settled by the intervention of the Packers and Stockyards administration, represented in this case by Dr. John R. Mohler, Chief of the Bureau of Animal Industry. It was found that the Kosher butchers had not the same chance others had to buy at wholesale, and when that problem was solved they resumed business. There was of course considerable change of the livestock situation, and that

always leads to suspicion when the situation results in high prices for meats. The Kosher butchers are not alone in this respect. We have found many city butchers who had not the slightest idea about the livestock situation and blamed the packer for the current prices. The settlement of the Kosher strike is one more act to the credit of the Packers and Stockyards administration and the legislation which established it.

THE EFFECTIVE TALKER

THE American Meat Packers' Association believes that it has accomplished something in proposing and demonstrating to producers the meat-type hog, which is "a thick-musled, firm-finished hog weighing between 190 and 240 pounds alive, with smooth back and belly, small proportion of shoulder and head and capable of producing the 28-30-inch loins demanded by the fresh meat trade." The hog the packers want "can be produced by almost any breed." The feeding is what makes the desirable hog—less corn or fat-making feed and more flesh-making feed the essential thing. All the talking, writing and demonstrating anybody or everybody can do will not give the packers the hog they want as long as its production costs more than the corn-fed hog and it commands no price premium. The way, and the only way, to get the meat-type hog is to sort out that kind and pay a premium on it. Money is the one effective talker in such a campaign.

AS TO MARGINS

A CORRESPONDENT reminds us that the higher the price level is the narrower the necessary margin between the price of feeders and the price of fat stock. It is true, as a little figuring will show. But there is another factor in feeding which calls for some consideration when we talk of margins. The overhead cost of operating a farm is greater than it was twenty-five or fifty years ago. All margins, whether in feeding or in any other operation, must mean more dollars than in those days. We don't know what margin a feeder should have to make a profit on steers at \$12 or over, or on lambs at around \$14; but it must be greater in amount than it was in the days of low taxes and cheap labor and supplies.

LIMITATION OF TRADING

LET us quote the conclusions of those who have been making a study of grain speculation in 1926: "The study confirms and strengthens conclusions previously reached as to the significance of large-scale speculation in grain futures markets. It declares the outstanding fact is established that the large-scale trading of leading speculators directly relates to price to a marked degree. Without this heavy concentrated trading price changes would be more gradual and would move more nearly in line with fundamental market information." History reveals some facts quite as interesting as the opinions of those who have been delving into the records of 1926. One of them is that without any speculation in grain futures, and with "fundamental information" in full effect, fluctuation in prices

is more violent than with a wide-open futures market. Who is competent to determine at any particular time the amount of grain anybody should contract for future delivery? Some official of the Department of Agriculture with a theory about fluctuations, some statesman at Washington with a prejudice against speculation, or those who risk their money on their judgment of the future? The limitation of trading is a step toward the abolition of our greatest commercial blessing, an open market, and we should deliberate a long time before taking it.

MORE OFFICIAL PROPHECY

SECRETARY JARDINE's second public statement on the wheat situation concludes thus: "On September 12 I pointed out that the large amount of wheat thrown on the markets by farmers was unduly depressing the price. I advised farmers to hold their wheat. I see nothing in the situation now to change this advice, and the above facts, indeed, strengthen my belief that farmers would benefit by doing so." The "above facts" are the deficiency in quality of the Canadian crop and the shortage in yield in Danubian regions.

No matter whether the Secretary proves to be correct or incorrect in his opinion of the future price of wheat he is wrong in making predictions and giving advice about it. Prophecy about future prices and advice about buying or selling are not proper functions of the Department of Agriculture or the head of that Department. There is no excuse for such things, not even the excuse that the Department and its head have been correct in their guesses. Only a few months ago a cotton prediction caused a market flurry and raised a storm of protest. Those who ventured to make it, subordinates of the Secretary of Agriculture, were properly censured and forbidden to indulge further in the fascinating sport of prophecy. What kind of an example is the Secretary setting for those who are already too prone to prophesy when their proper function is merely to ascertain and publish facts? Our Department of Agriculture and our Department of Commerce too should abstain from irresponsible predictions; for in the very nature of the case they cannot be responsible for any losses that may occur or any disturbance of business that may result from their prophecies.

"PART WOOL"

LAST week the manufacturers of knit underwear failed to reach an agreement as to the meaning or definition of "part wool" in their product. They and the manufacturers of blankets, in fact the whole woolen industry, should get somewhere on this point. Prolonged discussion of it and publicity about it are doing them no good, whereas a proper definition would inspire public confidence, which is worth more than any amount of suspicion. The principle of letting the buyer know what he is buying is sound but sometimes difficult of application in this industry. But a standard of some kind, and confidence in it, should be established for the sake of all concerned.

WHAT OUR READERS SAY

Centre County Hills

THE leaves have changed to their autumn colors, and we claim that one will go far before he will find scenery that will surpass that in our county, especially the drives about Bellefonte. Up the mountain to Snow Shoe, over the mountain to Centre Hall, as far as you gaze out over the famous Penn's Valley the scenery beggars description, and up the Bald Eagle Valley, on the Bald Eagle Trail, which runs east and west through the county. When this road was being constructed a car was passing one of the detours along the foothills of the Alleghenies when one of the men exclaimed: "Drive slow, for this is where Dame Nature broke her apron string and scattered her beauties all around."—A. I. Alexander, Centre county, Pa.

Topped Corn

ONE field of corn I noticed recently was topped. The farmer explained that by so doing he had eliminated the big butts which had few leaves on. After the field had been cleared of fodder he turned the cattle in to clean up the scattered blades. This system also does away with the aggravating cornstalks in the manure. The difficulty of plowing down the high stubble he overcame by running a disk over the field before he plowed.

I am glad to see that each year more and more oats fields and corn fields are plowed in the fall. This not only is a great help to the fertility of the soil, but kills many bugs and worms, besides making the soil easier to work.—G. A. F., Westmoreland county, Pa.

"Sweetest Gal I Ever Saw"

I AM not lecturing for Al Smith, but I sure do miss the old jug of cool, sweet cider. I regretted the passing of the one-hoss shay, but nothing compared to a cool drink of cider, handed to you by a beautiful damsel as you work in the harvest fields. I am not as young as I used to be, but I still like to look at the girl, as well as drink the cider.—By Hiram.

A Fair Exchange

WHAT would you do if you fell heir to the shoes of a farm paper editor? What would you talk about on the editorial page? Could you fill his shoes? Do you know the name of the editor of your farm paper? Do you read the editorial page?

The farm paper editor doesn't preach so very often, but sometimes there are mighty fine sermons on his editorial page. Don't fail to read the editorial page of any publication. It is the heart of the paper. Get the editor's opinions. Perhaps you'll agree with him; perhaps not.

But, whatever you do, don't get sore and throw the paper at an innocent cat. Write and give the editor your opinion. You've had his, and a fair exchange is no robbery.—S. H. Green.

Indian Moon Signs

I THINK S. D. A. made a mistake when he said that when the moon was level enough so the old Indian could hang his powder horn on it we should have a dry month. The old saying is that when the old Indian could hang his powder horn he would stay at home, but if he could not hang it he would take it with him.

From a prairie scout and a reader of your paper.—Jas. H. Tarter, Allegheny county, Pa.

A Good Neighborhood

THE word "neighborhood" is of Saxon origin and signifies the place that is near one's habitation; but in general it means the nearness of families to each other. It is as true in the country as in the small towns that the social conditions of the neighborhood may be either harmonious or the opposite or a point between the two.

"Loving thy neighbor as thyself" is the key to attaining the quietness and peace of a neighborhood, but as much as this doctrine is often disregarded there are probably no other elements that can bring about complete satisfaction in making a good neighborhood.

Influential residents often redeem a neighborhood from a suspicion of unworthiness and perhaps a great deal rests upon their shoulders. They must first be loved for what they are, for what they can

do, for the splendid things they will do and for the feeling of interest and brotherhood they ought to have for their neighbors.

A good neighborhood in the very making owes allegiance to those who live there, and the resident who knows how to work this up to satisfactory results is indeed influential. This does not mean down-right meddling with other people's affairs, pulling out the family skeleton, nor seeking an unfair advantage in possession. How often has a neighborhood felt a mighty change in the unwholesome ways after a leader somehow gained control and led on to better living.

If a neighborhood gains an unsavory reputation that clings to it for years it has undoubtedly been brought to that level by some person. Something has cast a pall over the content of a neighborhood, and though the scenes and actors in these things will always be remembered and pointed out yet it is desirable to rise above the influence of those hard points.

A farm neighborhood should be looked on as a means to an end—as a privilege divinely given to follow the most independent life there is. No man can live unto himself; he needs and must have the companionship of other men. No one can say that a hermit is happy. He may say he is and many try hard to feel that he is, but underlying this isolation



A Covered Water Tank

A covered water tank for the farm livestock is superior to the old-fashioned water tank. The water is cooler and fresher in summer, while less danger is experienced from freezing in winter. The cover also keeps out dust and trash, and makes it impossible for the farm dogs to take an occasional plunge.

This tank shown here is of heavy concrete and provided with a drain at the bottom, so that all water may be drained, and the sun's rays allowed to dry and purify the walls and bottom thoroughly. A strong frame of four-by-four lumber spans the tank, while another cross piece rests on the walls of the tank, to which the two halves of the cover are hinged.

The cover itself is built of tight one-inch lumber reinforced with two-by-four material. Hooks and staples in the cover and top cross pieces enable the owner to fasten the top up out of the way, when it is desirable to expose half or all the water supply. Thus the water supply can be half or all exposed or closed up altogether.

DAVID GRAY.

is sure to crop up the significant fact that he would be better off with better social conditions, and so it is in the neighborhood, the unanimous thought of improving personal welfare and an unselfish interest in your neighborhood is sure to be a pleasure at the cross-roads to whisper into the air itself that there is a good neighborhood. There is always room for improvement and in progress there is satisfaction.—J. L. C.

The West Virginia School System

I NOTICED in October 20th issue of your paper several articles concerning the West Virginia public schools.

I think that Claude Strother is exactly right in regard to this matter. C. L. Stansbury is all wrong and E. L. B. is right when he says the school should be brought to the pupils or the board of education should provide a way to get the pupils to school. Our boards of education in Marshall county do this, and we have nine months school in three districts and eight months term in the other seven districts.

One child has just as much right as another to get an education. I believe in economy, a business system of schools, efficient progressive teachers who give the public their money's worth, and I further believe the people should have a say in the government and the school term and salaries. I love a good kicker. It is a progressive sign.—C. B. Allman, Marshall county, W. Va.

Bull Nature Unchanged

EDITOR, Pennsylvania Farmer: Your recent account of "The Gentle Killer" moves me to write of a happening that occurred when I was but fourteen years of age—fifty-eight years ago. That's a long time, but bull nature does not seem to have changed in the least. He always was, is and always will be a "killer" to be respected and feared.

My father at that time owned a Devon—an exceptionally fine specimen of that beautiful breed—two and one-half years old, and entered him at the fair at Montrose, Susquehanna county. He was a pet, had never been struck a blow, and was perfectly broken to be driven like an ox with a small switch. Had always been turned loose in the yard for service, and returned quietly by the motion of the switch alone.

My father had such confidence in his absolute control that when the bulls were brought out for judging, he turned him loose and, with nothing for control but a riding whip, paraded him around the ring where scores of bulls were bellowing, and with everything to excite and madden. And he got away with it, too. And more, he was awarded the premium for the best Devon bull and also a sweepstakes offered that year for the best animal of any kind, on the grounds.

The following week he turned this bull out with a heifer. This time he had a small cord done up on his horns that were unusually long, even for that breed. Father stood directly in front undoing the cord when like a flash, and without the least warning, the bull had him down and was tossing him about on those formidable horns.

And chance alone saved his life. He was tossed into the air and quite a distance from the now infuriated animal, and in the direction of a nearby fence and, striking on his hands and knees, he got to his feet and beat the bull to it. He was badly injured but managed to get to the house and a doctor was summoned. I gathered several neighbors and, aided by a good dog, we got his bullship in the barn with a log chain about his neck. The following January, the manger was removed and, chained to a post, the bull walked out on the barn floor and was slaughtered. Lacking some three months of three years old, the quarters weighed 96 1/2 pounds.

Always perfectly quiet before, ever after his attack on my father he was like an enraged lion whenever any one was in sight.

Prior to this experience my father feared no bull, believing he could subdue the worst of them; but during the remainder of his life he strenuously avoided even the scrubbiest specimens and always reproached himself for the foolhardy act of turning such a beast loose among a crowd of people.—G. W. Bunnell.

Grandfather's Spirit

GRANDFATHER was a staid old man. As I walk over the acres he worked, more patches than fields, dodging the ponds and ditches and bound to respect him. He had a serene mind—and when he made his final departure from his fields it seemed the will of his Maker that his calm spirit should pass out in the fresh bright month of June. Where spirits go we never can tell yet, but grandfather's spirit has seemed to hang around the place.

In the rush and grind of work no doubt grandfather's spirit was there in the shades if I had thought about it, if I had reflected about it—but I was too busy! We plowed long straight furrows and right across grandfather's ponds and ditches and worming fence rows; we loaded loads that would have made grandfather "open his eyes"; we took longer steps than grandfather took and without a doubt more of them and faster.

Grandfather's lips are forever silent, of course; but as I study his calm old face in the oval frame with the clean white beard that fringed his serene countenance I am bound to say to myself his moderate staid way was the best. Now, when the rush won't rush quite as rushingly as I used to want it to rush, I just wave a figurative hand to grandfather's serene spirit still hanging around the place—and save myself many useless and petty annoyances that might otherwise look big and provoking and real.—Hiram Dobbin.

Eastern Farm Comments

By MILES HORST

A STUDY of the tenant problem in Pennsylvania by our State College reveals the fact that only 48 per cent of our tenants have written contracts with the land owners. While this is a fine tribute to the honesty of both tenants and landlords, we question the wisdom of leaving the contract verbal. One experience I had with a tenant over a verbal agreement proved rather expensive in the end.

APPLE GROWERS from 33 counties in western Pennsylvania, eastern Ohio and northern West Virginia last week took part in the first tri-state apple show to be staged in this district under the auspices of the Pittsburgh Chamber of Commerce and cooperating organizations. The agricultural committee of the Chamber of Commerce believes that the apples grown in this territory are equal or superior to the fancy boxed apples from the Northwest and promoted the show in order to bring this fact to the attention of Pittsburgh consumers. That they succeeded was apparent at a glance of the attractive display of well-graded, high-quality fruit in the popular bushel-basket pack as well as the individual plates of five apples each, which not only pleased the connoisseurs of the king of fruits but brought to grey-haired business men memories of boyhood days when home-grown apples held high place in appetites sharpened by frosty fall mornings.

The show was judged by W. D. Peck of Cornell University. First prize on farm display went to Treedale Farms, Mars, Pa.; second to A. W. Ansel & Sons, Baden, Pa.; third to E. C. Carter, Allison Park, Pa. In all about one hundred and fifty exhibits were made, bringing to city consumers in a forcible way the desirable qualities of locally-grown fruit and drawing their attention to the value of apples in the diet.

This show is the beginning of a comprehensive program by the Pittsburgh Chamber of Commerce and similar organizations in this territory to promote the development of all resources in the surrounding region. Although the Pittsburgh district is widely known as a great steel center it is also a great agricultural center and the industry of farming will have its place among the others in more comprehensive shows and other means of developing business here.

NINE of the thirteen boys in the Union county acre potato club came through this season with better than 400-bushel yields from their measured acres.

THE Pennsylvania Bureau of Plant Industry is advising farmers in the corn borer infested territory to clean up as much of their corn stubble land this fall as possible. Dragging a bar or plank across stubble fields where stalks have been cut higher than two inches from the ground on a cold morning this fall will snap off the stalks and make it easier to gather them this fall or plow them down next spring.

AN EXTENSIVE research project now in orchard management that will cover the three states of Pennsylvania, Virginia and West Virginia will be started January 1 under a cooperative arrangement between the experiment stations of these three states. This project will aim to determine the place of the orchard in the farm organization of the most economical production and the maximum net returns. Varieties of apples to grow, how to plan and care for the orchard and how to organize the business are the main points on which data will be gathered.

THE Better Dairy Sires Train, which was conducted over the New York Central Lines of Northwestern Pennsylvania during the past two weeks, well paid for the effort and expense put into it. Thousands of farm and city folks studied the exhibits it carried and discussed dairy problems with the specialists accompanying the train. The central theme of the exhibits and the speakers was the economy in using well-bred sires. The train started out at Jersey Shore with 63 pure-bred bulls. It added 32 more as it went along. These were sold to dairymen at cost. Trades on scrub bulls were allowed and the owners received credit on scrubs at slaughter

Jersey Shore and fourteen more at the next three stops.

EARL YEAGER of Clearfield county has joined the growing group of poultrymen enthusiastic over the confinement system of growing chicks. This was the first year he broke away from the range system of chick management. He bought 2,100 chicks last March, placed them in screened brooder houses, with screened porches. The houses were thoroughly sterilized before the chicks were put into them and all precaution used from then on to keep contamination out of them. The growing chicks never touched ground nor left the houses. A few weeks ago he transferred 914 pullets from these houses to his laying houses, as strong a flock of pullets as he has yet raised. He lost in all but 190 of the 2,100 chicks by death or other causes. He attributes his success to the control of chick diseases made possible by this system of isolation from contamination.

THE general plan of Pennsylvania's winter Farm Products Show, to be held at Harrisburg, January 22 to 25, was definitely outlined at a meeting of the Show Commission held at Harrisburg, October 30. The space available for the show this year exceeds that of last year by 35,000 square feet, the total being 155,000 square feet. The availability of a single floor with and area of 40,000 square feet of space is a pleasing feature of the coming show and one which makes it possible to concentrate the show around the point of Cameron and Market Streets. This space lies over the floor where the potato show was held last year. It will hold this year's exhibits of fruits, vegetables, potatoes, corn and small grains, as well as the educational exhibits. Dairy cattle and dairy products will appear in the room where potatoes were shown last year. Two floors in the Emerson Building will contain the tobacco, the apary, the maple products, the egg and the Home Economics exhibits. The poultry show will be transferred to the Vance Building, where corn and wool were shown last year. Wool and livestock will be shown and sold in the Duco and the International Buildings on West Cameron Street.

GOVERNOR FISHER last week renewed his pledge made to the farmers of the state last January that he would use his influence during the coming legislative session to secure state funds sufficient to provide a permanent home of adequate housing facilities for Pennsylvania's Winter Farm



Delaware Poultry Tour

About 120 poultrymen and women gathered on Thursday, October 25th, to attend the third annual poultry tour of the Delaware State Poultry Association. The tour was sponsored by this organization in cooperation with the Delaware State Board of Agriculture and the Agricultural Extension Service of the University of Delaware. This two-day event started in New Castle county and closed with a banquet and lecture at Milford, Sussex county, on the evening of the second day.

Much interest was evidenced by the poultrymen at the alfalfa drying plant, seven miles south of Wilmington on the DuPont highway, a picture of which is shown above. This was the starting place of the tour and here Dr. H. E. Kiefer, vice-president of the Mason Alfalfa Process Co., told how fresh cut alfalfa hay is cured by artificial heat and made into alfalfa meal suitable for poultry and other feeds. Prominent poultry farms and the University of Delaware poultry plant were visited on the trip. Around 125 poultrymen attended the annual banquet and meeting held on Friday evening in the Milford Grange Hall. Dr. Maurice Hall, Chief of the Zoological Division, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C., gave an inter-

Products Show. The Governor shares the opinion of the public, particularly that of the rural people, that the Show has demonstrated its value as an up-building influence in the agricultural life of the state and that it deserves the support of the public in continuing to make it more useful. That the Show has outgrown the facilities that the city of Harrisburg can offer it has been recognized even before it attained its present size. During the past several years it has gone along in a very cramped condition. The step to be taken next is to give it a permanent home large enough to house an agricultural exhibit worthy of the state of Pennsylvania. The Governor's endorsement makes the likelihood of such a home more assuring.

THE boys and girls engaged in club work throughout the anthracite coal regions of Pennsylvania have during the past several years demonstrated that in this territory at least it is profitable to grow such vegetables as celery and cabbage. A celery club with thirty-seven members centering around Tamaqua, Schuylkill county, for example, planted 500 celery plants per member in July. They sold their crop last week for 8 to 12 cents a stalk. The market was eager for this home-grown stuff as it always is when locally-grown vegetables are at least fair in quality.

New Jersey Notes

THE farm organizations in New Jersey, working through the joint legislative program of the New Jersey Farm Bureau and the State Grange, will urge this winter's legislature to repeal the present personal exemption tax on automobiles. The farmers are taking the position that the tax exemption on automobiles has worked a great hardship on municipalities. In addition, they further contend that the state gasoline tax, which brought in revenues substantially double the estimated receipts during the past fiscal year, gives sufficient funds for reduction of automobile registration fees to a nominal sum.

THE program list for the Somerset County Apple Show, to be held at Somerville on December 1, promises one of the best local winter fruit shows of the season. The exhibits will be divided into two groups, one for those who won three or more first prizes in 1927 and the other for new exhibitors and those who do not come under the first group. Classes and prizes are exactly the same for both groups. Prize money will be liberal and the County Board of Agriculture, banks, business men and manufacturers of spray materials and orchard equipment have contributed generously.

DISCUSSION in New Jersey vegetable and fruit sections during the last year does not indicate complete satisfaction of growers in the handling of federal and state quarantines such as against the Japanese beetle, corn earer and gipsy moth. Indicating a desire to partake in the drawing up of quarantine regulations affecting not only fruit and vegetables, but nursery stock as well, several farm organizations have appealed to the State Department of Agriculture and the Federation of County Boards for the privilege of sitting in on quarantine conferences.

THE New Jersey Peach Council, formulated a year ago as the phase of a state-wide program for New Jersey agriculture, intends to recommend a new white-fleshed freestone peach, particularly adapted to New Jersey conditions. If no faults of commercial importance appear during the fruiting season of 1929, the peach variety will be offered to growers in limited quantities from the fruit department of the New Jersey Experiment Station. The New Jersey Peach Council consists of John H. Hankinson, president; A. J. Farley, secretary; Lloyd Davis, A. Clinton Clement, Charles Burton, W. W. Oley, Henry Hall, Fred M. A. Blake, Byron Roberts, Lester Collins and Laton Parkhurst.

NEW BRUNSWICK was the scene of activity on November 20, 30 and 31, when delegates from New Jersey's twenty vocational high schools met at the College to compete for honors in the judging ring. On Monday and Tuesday these young farmers spent most of their time judging livestock and produce. Freshhold vocational high school returned home with more than their share of silver cups that were

How Plows Are Made

By R. U. BLASINGAME



"Save the surface and you save all" is one of the truest slogans ever written. It is a literal fact! Think of the millions of dollars worth of property that goes to rack and ruin simply because the surfaces were not protected by a coat of good paint.

Felton-Sibley Ready Mixed House Paint is one of the best paints you can find. It's the paint you want to use on your property.

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Felton-Sibley dealers are selected because they know paint and paint problems. Get the benefit of their experience. Ask them to show you the new Felton-Sibley Color Guide. This contains large reproductions of 15 buildings just as they actually look when finished, and also a great many other helps on painting and home decoration. There's a dealer near you.

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AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.

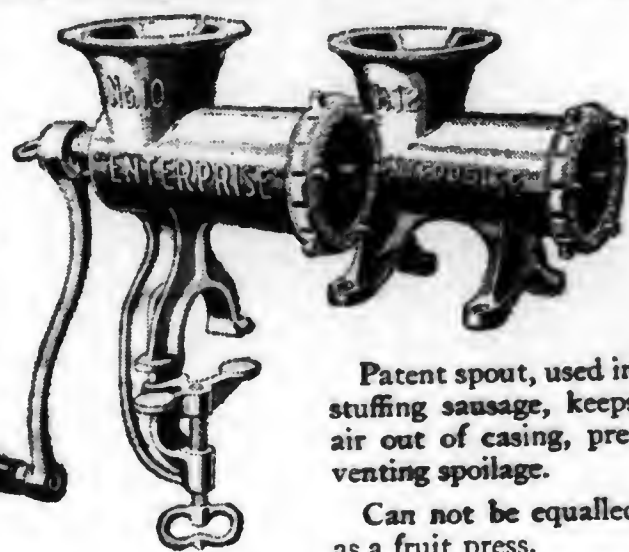
IF YOU KILL SOME OF YOUR HOGS

YOU can make your own sausage, ham, bacon, lard, etc., with finer flavor, at lower cost. "Enterprise" Meat-and-Food Choppers and Combination Presses help make your pork more profitable.

"Enterprise" Meat Choppers (shown above) have been so greatly improved that it will pay to buy the latest model, even though you may already have an old one.

The new pattern four-bladed steel knife and the perforated steel plate do perfect cutting—no grinding or mashing—and retain all the rich food juices.

Different models, \$3.25 to \$11.00. The genuine are marked "Enterprise."



Patent spout, used in stuffing sausage, keeps air out of casing, preventing spoilage.

Can not be equalled as a fruit press.

Three sizes, \$11.50 to \$13.75.

You can get "Enterprise" anywhere, from a good dealer. But you see the name on the machines.

You also want an "Enterprise" Sausage Stuffer, Lard and Fruit Press (shown at right)—three useful machines in one. All metal, always sanitary.

Compound gears give tons of pressure, getting all the lard from the hot cracklings—making more money for you.

"ENTERPRISE"

Meat-and-Food Choppers... Sausage Stuffers, Lard and Fruit Presses
The Enterprise Manufacturing Co., Philadelphia, U.S.A.

I HAD the opportunity recently to go through one of the oldest plow manufacturing plants in the country. However aged the establishment, its processes of making plows today are up to date and equal to the standard maintained by any other plant of its kind.

All of the plows made in this factory are of steel, there being a companion plant in another state where chilled plows are manufactured, the parts of which are interchangeable with the steel plow parts. One can get some idea from this fact how accurately the parts are made. If any one in Pennsylvania, for instance, owns one of these plows and desires a chilled moldboard and a share the parts made in one plant would fit perfectly on the plow standard or frog which was manufactured in the other.

Soft Center Steel

The moldboards are made of what is known to the trade as soft-center steel. This is a special steel made in three layers, the center layer being rather soft to give strength, whereas the outer layers are extremely hard and take high polish. The moldboards are received at the factory, stamped out ready to be shaped; they are placed in a furnace and heated until red. These moldboards are then placed under a trip hammer which is the desired shape and forged into the curve so well known to all of us. It is immediately plunged into a bath of cold brine which is kept at a temperature of 25 to 30 degrees F. It remains in the brine for seven seconds and is timed by an electric device. Immediately on being removed from the brine it is placed in a "squeeze die" where cold water is run over it until the moldboard is cool.

The company maintains a 125-ton refrigerating plant for the sole purpose of maintaining brine at 25 to 30 degrees for quenching or tempering plow parts in the factory. The brine is circulated by powerful pumps which take the hot brine back to be chilled.

While the moldboard is hot, and before it is quenched, a patch of hard steel is welded on the shin in order to reinforce it at the cutting edge.

The share is made of two parts welded together under a trip hammer, sometimes called a "drop forge". The share

is also heated and quenched, in order to properly temper it, in the same manner as the moldboard.

Beams Heat Treated

Passing on from the department where shares and moldboards are made, I entered the beam department. All of the beams for the two and three-bottom tractor plows are made of flat pieces of steel. These bars are heated in gas furnaces and placed on a machine where they are bent into the desired shape. They are immediately quenched in a cold brine bath, after the necessary holes have been drilled or punched. Each one of these plow beams, after cooled, is clamped into a machine and bent out of true six inches. If it returns to its original position it is marked OK and goes into a plow. If it is warped out of shape by this bending process it goes on the junk heap. This is known as the "deflection" test, which is administered in order to be sure that the plow will stand the shocks and strains which it is liable to be subjected to in the field.

Steel Frogs

Years ago most frogs for plows were made of cast iron. Later they were made of malleable iron. However, I noticed that all of the frogs, sometimes called standards, in this factory are now being made of steel. Steel standards are more expensive, just as heat treated beams and other parts are. Whereas a two-bottom tractor plow once sold for about \$120 and was not heat-treated, the same plow sells now for around \$105 or \$110, depending on the freight rates and distance of shipment. In other words, the manufacturer is making a superior product of his own volition, selling at a cheaper price, and therefore giving the purchaser the benefit of a better product for less money.

These new methods in manufacturing processes have cost a great deal of money. The research department of this organization has developed this superior product at considerable cost to the company. On the other hand, the manufacturing division of the organization has studied short cuts and the use of powerful and rapid machinery, thereby reducing the cost of production. Many farmers through this



Two Jobs in One

The question is often asked how to pull a section of spike-tooth harrows behind the tractor when plowing. This illustration shows the job being done. A piece of angle iron is bolted to the tractor and extended out far enough to the right to make a good job of harrowing. This practice is particularly well adapted to late spring and early summer plowing. This is one of the great advantages of ample power. One man can do two jobs at one time—con-

section of the country are doing the same thing. The rare employing better methods and better machinery and producing cheaper than in former times.

Inspection

The plow bases are all built on what is called a "horse", which is mounted on a heavy steel-topped table. Each part of the bottom is bolted on to this "horse" and the parts must fit perfectly or the inspector rejects them. The company is not satisfied with inspecting one out of 25 or 50 parts, but it goes so far as to bolt each part in position to see if it fits. The moldboard and share are then removed and built into the plow bottom. It then goes to the grinding room.

The plow bottom is placed on a rack having two handles, looking very much like a wheelbarrow. By the use of springs the plow base is placed under the heavy grinding wheels and the rough portions ground away. It then passes on to finer wheels in succession until it arrives under the emery wheel, which is made of layers of cloth. This is where the surface of the plow is polished like a mirror.

The cloth emery wheels are put into glue and then the grinding surface rolled in emery dust. When this coating of glue and emery dust is hardened the emery wheels are put into operation, polishing the plow bottom, particularly the share and moldboard. These cloth wheels naturally have some give and flexibility, which is essential to a high polish.

Painting and Varnishing

Immediately after the plow bottom is polished a coating of paint is applied to all the portions except the polished parts. The mold board, share and land-side are wiped perfectly dry and coated with varnish. This is to prevent rusting.

While the plow bottoms are being constructed, polished, varnished and painted, the frames, consisting of the beams, braces, power lift, etc., are being bolted or riveted together in another department. These frames are also built on a steel horse and each part must fit perfectly according to accurate measure. It stands to reason that the plow frame must be as accurate as the plow bases in order that the implement will work properly when placed in the field.

Protection from Rust

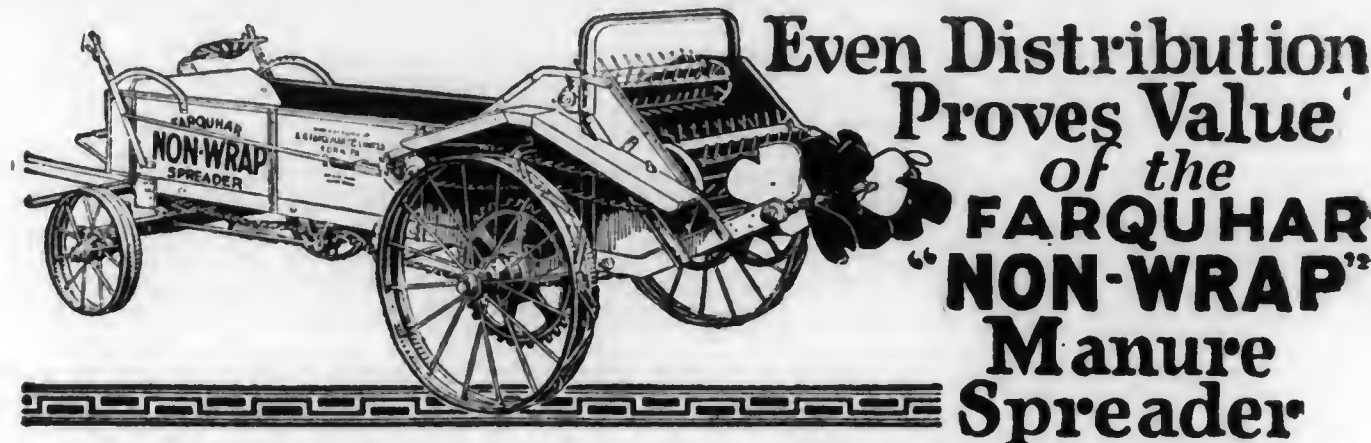
In order to take full advantage of the care which is exercised in manufacturing these implements the purchaser certainly ought to take good care of this equipment when he has it on his farm. From my observation I believe that the farmers through this territory are far more careful with their equipment than the farmers in the South and the West. To maintain the wonderful polish which is given to the moldboard and share it is a good idea to coat these parts with grease when the plow is not in use.

While passing through the factory I was given a file and asked to try to mark the moldboard. It was impossible to make any impression or it with the file, except on the bolt heads, which are soft.

Water-Tight Concrete

I SHOULD like to have a formula for making a water-proof cellar floor with cement. What can be added to cement and sand to make it water-proof?
EIMER UNGER.

I KNOW of no preparation that you can put in concrete to improve its quality, so far as being water tight is concerned. Concrete is used for making water tanks, and it is leak proof. If you will use a mixture of one part cement, two parts of clean sand, four parts of river gravel or crushed limestone, and about 7 1/2 gallons of water to each bag of cement, and mix it thoroughly and tamp it well, you will have water-tight concrete. If you use too much water, that is, make the concrete sloppy, it will not be as good as if you



EVEN DISTRIBUTION is possible only when beaters deliver an even stream to the distributor.

The positive oscillating tooth bars place the pulverizing teeth in such positions, as the beaters revolve, so that they break up and tear the manure apart and at the same time clean themselves and the teeth by centrifugal force. These beaters cannot wrap and must deliver the manure to the distributor in an even stream.

The 16 point distributor further reduces the manure and spreads it evenly over every square inch of ground. Therefore the Farquhar "Non-Wrap" Spreader uniformly increases soil fertility thereby assuring maximum crops.

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A. B. Farquhar Co., Limited,
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An All Steel Frame with Heavy Channel Sides

Great Flexibility of Front Axle — Auto Guide Front Wheels.

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Largest Manufacturers of Agricultural Machinery in the East

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Improved New 1929 Uni-Hete Kerosene or distillate burner with air producing an intensely hot, clean, smokeless, silent burning flame. Heat can be regulated to any degree by fuel controlling valves. Improves your stove life. Have been manufacturing of burning devices for thirty-three years. We make this offer for a limited time only. Specify for range or heater.

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Garden and Truck Crops

By GILBERT S. WATTS

IT IS a real test of one's salesmanship to dispose of a crop profitably in a season of great abundance. Profitable movement of the potato crop presents such a problem on many farms this year and in this connection I am thinking more particularly of those who are not large growers or potato specialists.



Those of us whose acreage is relatively small and whose crop per farm is a few hundred or a thousand bushels at the most. In a sense we are at a disadvantage because we cannot always afford to invest in so full a line of potato machinery as the grower who has a large acreage.

On the other hand, because our individual crop is not so great, we are in position in many instances to sell a goodly proportion direct to consumers at figures somewhat in advance of ruling job lot prices. Of course, it must be kept in mind that the cost per bushel of selling to consumers is likely to be higher than the cost of selling to dealers. However, there may be exceptions to this rule, particularly when the consumer can be induced to come to the roadside market or farm buildings to lay in his winter's supply of potatoes. In other instances the increased return from selling to the consumer may more than offset the added cost.

When I began digging potatoes a large cardboard sign was put up on my roadside market. It read—

GRADED POTATOES
22c Pk.
85c BUSHEL

This was about the prevailing chain-store price in town and about twenty-five cents more than local dealers were paying. So that customers could have no fear of soiling their cars or clothing from the dust and dirt that will work through a burlap sack a cheap but strong grade of brown one-fourth barrel flour sacks was used as a container.

Franklin County Orchards

By S. W. FLETCHER

IN a recent trip through Franklin County, Pa., with a group of college students one of the objects of special interest was the packing house at the Ledy orchard, one of the best in the state, especially in the use of all kinds of labor-saving machinery. A pound of shredded oiled paper is worked into each barrel, some at each end and in the middle. This prevents storage scald and adds 25 to 35 cents a barrel to the selling price, according to Manager Davidson.

Common Storage

It is interesting to observe the gradual spread of the common storage into wholesale apple districts. A few years ago this facility was recommended for local market growers only; now there are a number of common storages in the Shenandoah-Cumberland region. Mr. R. T. Criswell, of Chambersburg, has just completed a type of storage which is a pioneer in that district. It is 104 by 28 by 11 feet high, and about 40 per cent below ground.

The building is of frame construction, except for the masonry walls below ground. Insulation was secured

Exactly 30 pounds of potatoes were weighed into each sack. This made a package that was convenient to load in the car, not too heavy to handle easily and absolutely dirt proof. The idea caught well and proved a real selling point. Pecks also were provided at 22c, packed in 25-pound paper bags. But the largest demand was for the "handy half bushel", as the sales people on the market always referred to that package.

Not uncommonly one customer would take ten or more half bushels at a time. Some made several trips, at intervals of a day or two, until they had stocked up to meet their full requirements. Incidentally they bought other vegetables at each trip. Now, four weeks after beginning to dig, all my potatoes have been sold here at the roadside market, an average of about 200 bushels per week and all for cash, no credit whatsoever having been extended.

Quality Counts

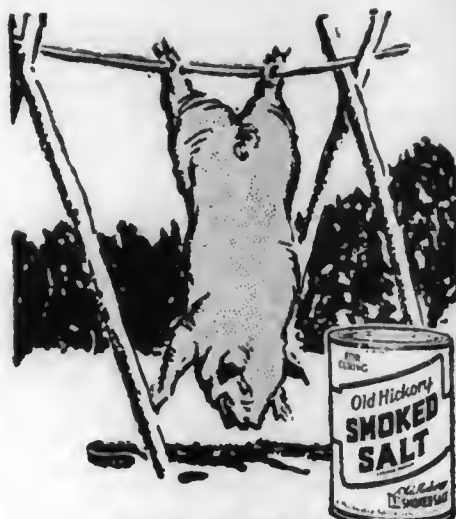
One day a gentleman whom I recognized as one of my best customers bought some of nearly everything on the market except potatoes. I called his attention to the potatoes and the "handy half-bushel dust-proof package", but he replied that he had secured all his potatoes for a great many years from one farmer and did not care to make a change. Then he went on to tell enthusiastically of the uniformly high quality potatoes he had enjoyed and ended up by saying, "Even though he is asking \$1 a bushel I am going to get my 30 bushels there again this year." Thus that farmer, through his reputation for putting out a uniformly dependable product, realized fifteen cents a bushel more than the going retail price.

Other possibilities in moving the potato crop direct to the consumer are the curb market, market house and retail route or house to house canvass. The matter of securing a satisfactory trade through any of these outlets in a time of severe competition resolves itself into offering something out of the ordinary in price, quality, service and dependability.

sawdust on the ceiling. Ventilation is secured by a large double door at one end, 14 feet wide, protected by a vestibule. There is also an inside iron door which is covered with hardware cloth, to keep out rodents. Except in the coldest weather, the insulated doors stand wide open all the time and the wire doors are kept locked. At the other end of the building is a small door for cross ventilation. There are no flues. It may be that Mr. Criswell will find it desirable to put a large flue, say two feet square, in each corner opposite the big door; there may be some trouble with scald in these corners.

The floor is of dirt. If mice burrow beneath the walls and come up into the cellar, the floor will be covered with hardware cloth, cemented into the walls. This is better, he thinks, than putting in a cement floor, which would make the cellar too dry, unless flushed frequently.

The unique feature about this cellar is the 2½-inch stream of mountain spring water, 50 gallons a minute, which passes through it, in a concrete dip, about a foot wide, next to one wall. The temperature of this water is about



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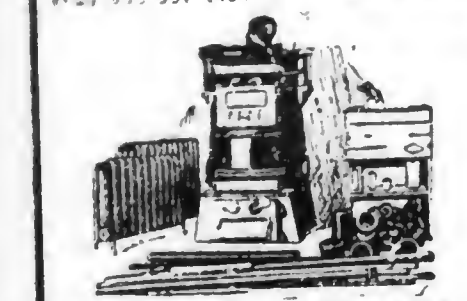
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up this year by August 1st, while 100 applications were turned down because of lack of room. We are looking forward to a third contest plant in New Jersey for 1929 at Flemington.

"It is a very interesting and gratifying fact that 80 per cent of the entries were from New Jersey. Coupled with a home R. O. P. enrollment of 50,000 birds, it means that New Jersey breeders realize the importance of good production, and further, that they will have an enormous output of high-class hatching eggs, chicks and breeding stock to ship to other states."

TRAPNESTING is only the foundation of a breeding program, and when you get into really constructive breeding work, you run into a great many further complexities. This sort of work is extremely fascinating, but not all poultrymen are qualified to do it, so that advanced poultry breeding has become the most highly specialized branch of the poultry industry.

WHEN I moved to my present location some years back, farming in this section was principally heavy grain and dairy, and some of the older farmers were outspoken in their belief that any one who tried to raise fruit or vegetables or keep poultry for a living was feeble-minded or at least some what lacking, and certainly on the road to ruin. Since that time, timothy hay has passed out as a cash crop, wages and taxes have made grain farming unprofitable, many herds have been wiped out by the tuberculous test, and it has become increasingly hard to get good hauls in the dairy barn.

IN ORDER to provide pedigreed cockerels for 1930, I have a small flock of hens which have laid 200 eggs or more under official supervision. The best of these produced 251 eggs in her pullet year, and several more are above 225. These will be trapped again for further records, and in the spring will be mated with a pedigreed, wing banded cockerel whose dam laid better than 225 eggs as a pullet. Chicks from this flock will be pedigreed, that is, each will bear a wing band from which it will be possible to determine its sire and dam.

There are still some very good herds here, and while the dairy business is important, there has been a mild boom in the poultry business and some good money made out of it, and several successful vegetable and fruit farms have been established. Just north of us we have the Hunterdon county poultry section, with some of the largest hatcheries in the country.

Changing conditions have resulted in a different attitude toward the new forms of farming, which are of a more intensive nature, suited to the high costs of operation. To reflect this changed attitude, I recently heard a farmer who operates a combination general, dairy and poultry farm say that he harvested ten acres each of wheat and oats this season, but would have preferred the income from two good cows, and would much rather have taken care of a flock of good hens as the work would have been a great deal easier.

THIS is the first season during which I have trapped birds, so last year it was necessary for me to purchase pedigree chicks in order to have pedigreed males at this time. I bought 100 chicks, and raised some thing over 40 cockerels out of the lot, which will be ample for my needs and give me a small surplus to sell at the beginning of the year.

I SAW a piece in the Pennsylvania Farmer about a woman's ducks laying. I cannot understand how any one can lose ducks. I have raised over this year and have lost five and two of them the dog killed. At seven to eight weeks old they dressed four to five pounds. My ducks are Mammoth White Pekins. This year they made a record of 227 eggs each and I am still getting two and three eggs a day from each. Last year they laid 187. I wish I could get them officially tested like you can hens, but they are on the range and if they are shut up I should not do as well.

I feed 100 pounds corn meal, pounds shorts, 75 pounds fine ground oats, if shut up 50 pounds alfalfa meal, five pounds salt, five pounds limestone and 25 pounds meat scrap. If it wet with skim milk. If I do not have the milk I add five pounds more meat scrap.

Besides the ducks I hatched out 4,000 pure-bred Barred Rocks year. I would like to know any who could beat this record of 227 for Pekin ducks.

MRS. I. G. PALMER

OF COURSE you cannot turn your flocks out into the cold, damp winter weather, but you can bring pure sunlight—with the ultra-violet rays left in—inside your poultry houses through Cel-O-Glass. You know that pure sunlight is the best tonic for poultry—and the cheapest—for sunlight is plentiful.

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st cold, have fuel and doctor bills. Look for new rooms at low cost. Violet rays are healthful for humans, too.

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Stops Roup, Canker, Colds Over-night
 Deadly roup starts like a cold, with running nose, etc. It spreads readily.

top-Over is entirely unlike anything else, and far quicker in action. Used by leading poultry raisers everywhere. Money refunded if it doesn't do the work. For a liberal supply send 50c to Burrell-Dugger Co., 674

I HAVE a Rhode Island rooster which weighs about four pounds. The other day I went out to the chicken house and he seemed to be weak and his wings were drooping. I feed corn morning and night, and he has mash before him all the time. He is shut up in the daytime.

I feed a mash consisting of three parts bran, two parts middlings, two quarts meat scrap to every bushel mash. How can I increase this mash to make a good laying mash? How to make a growing or fattening mash?

I am also thinking of spraying my hen house to kill such pests as lice. What is the best thing to spray it with?

A. H. H.

YOUR Rhode Island Red rooster may be infested with coccidiosis or worms. Paralysis may be the result of either of these two causes. It is difficult indeed to treat fowls so as to effect a hundred per cent recovery. There is little that you can do to correct this trouble this year. My suggestion would be for you to move the brooder houses to new ground. Disinfect them thoroughly before they are moved and raise your chickens next year either in confinement or on ground to which chicks have had no access for a number of years.

A very satisfactory growing mash can be made by using the following ingredients: 200 lbs. yellow corn meal, 100 lbs. wheat bran, 200 lbs. flour or standard wheat middlings, 150 lbs. ground oats, 100 lbs. alfalfa leaf meal, 75 lbs. meat scrap (50-55 per cent protein), 50 lbs. dried buttermilk or dried skim milk, 75 lbs. fishmeal, 200 lbs. oyster shell, 10 lbs. refined cod-liver oil, 1 lb. steamed bone meal. This mash will also answer the purpose as a mash for laying fowls.

As a fattening mash, I would suggest 50 lbs. corn meal, 25 lbs. ground oats, 10 lbs. bran and 15 lbs. middlings. This is to be mixed with milk to a crumbly consistency. The birds should be given what they will clean up in 15 to 30 minutes.

2 to 20 minutes. Hen lice may be killed in numerous ways. One of the most recent methods of eradication consists of an application of blue sulphate on the perfect stage just before the bird goes to roost. Nicotine sulphate may be placed in a small quantity of kerosene or kerosene and ordinary oil can and a small amount used on the entire length of the roost rails. It is imperative that all birds go to roost in order to make this treatment 100 per cent effective. Another treatment for the eradication of hen lice is the application of blue ointment. To one pound of blue ointment add a pound of crude vaseline. Mix the two thoroughly together and apply an amount equal to the size of a pea under the wing and under each wing. In about seven days to two weeks give a second application. As a treatment for mites in poultry houses, I would suggest that you use some coal-tar disinfectant. This material should be painted on the roosts and in all cracks and crevices.

HOW much roosting space should hens have? Is it better to let hens roost in the house or have a part partitioned off for sleeping quarters?

WILLIAM L. FERRIS.

As a rule, it is considered better for poultry management not to have a section of the house partitioned off for roosts, but rather to have the roosts in the rear of the regular laying unit.

For the lighter breeds, it is well to allow six to eight inches of roosting space per fowl and in the case of the heavy breeds ten to twelve inches. Some poultrymen make a serious mistake in over-crowding their birds. Flocks may be fairly well crowded as far as floor space is concerned, but when they go to roost it is imperative that they be supplied with sufficient

"Oat feed" says one bag. "Feeding oat meal" says another.

Do you know the real difference in oat products?

The bulk of "oat feed" is useless ground hulls of no food value. "Feeding oat meal" is good nourishing oatmeal—oat middlings, shorts and groats.

THERE IS NO "OAT FEED" IN PRATTS! The oat product in Pratts is the finest oat product that money can buy.

Oats is just a typical case. The same is true of all the other ingredients in Pratts too. That is why those who keep feed costs per dozen eggs, depend on PRATTS. Not only does the quality of

Pratt ingredients rigidly maintain, but Pratt formulae never vary regardless of changing market conditions.

Only the finest grade of meal: standard corn, dried buttermilk—only Pratt standard corn, feeding oat meal, bran and middlings, are ever used in laying mash.

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If your dealer is not listed write us, as there are hundreds of loyal Pratt dealers who buy less than car lots whose name space does not permit listing.

Care of Farm Manure

By W. D. ZINN

THE time is here when farmers will have manure accumulating in the barns, and the following questions will arise in the minds of many of them: Where should it be applied? When? How much per acre?

One answer to the first question cannot be given for all sections. The Ohio Station recommends to the Corn-Belt farmers that they apply this manure to the ground intended for corn. For the corn grower I believe this is right, but it does not apply to the farmer who makes hay one of his leading crops. It is my judgment that such a farmer will get most out of his manure by applying it to the newly seeded meadows, or if there are permanent meadows on the farm—then the manure should go on them.

Whether applied to the corn ground, meadows or elsewhere there is no question about when it should be applied. It should go out as fast as it is made. Feeding plants is like feeding animals. They can eat so much and no more. Farmers have wasted a lot of manure by applying more than the plants could consume and a lot of it has been lost. The Pennsylvania Station applied manure at the rate of four, six, eight and ten tons per acre and in every instance four tons gave a larger profit per ton for the manure applied than any greater amount.

Farmers often say, "Give me plenty of manure and I want no commercial fertilizer." They are wrong. Manure is rich in nitrogen and potash, if it has been properly saved, but low in phosphoric acid. Plants need a balanced ration as much as animals. The Ohio Station got 96 cents more per ton for manure after it had received 40 pounds superphosphate per ton after paying for the fertilizer, and this was the average increase in a twenty-five year test.

Seed Corn

It is said that corn this season has a very large percentage of moisture in it, and farmers should see to it that the seed corn is well dried out before cold weather comes. If it could be stored in a well-ventilated room where the temperature would never get much below freezing it would be all the better.

Woodbine Notes

A Pennsylvania reader writes: "Give us more of the doings on Woodbine." The truth is that we have had such a wet season that the crops are the poorest we have ever had and when we have said anything about the farm I

am sure it has not proved to be an inspiration to any one. For the first year since we have had two silos we have but one filled though we had 23 acres of corn. This silo holds about 160 tons, but it has only about 140 tons in it. The potato crop was fully as bad a failure as the corn. The hay crop was very fine and most of it was put up in good shape.

We had 18 acres of wheat and vetch which was sown to be cut for hay. Eight acres was cut for hay, but it rained almost continually during the month of June and ten acres of wheat got ripe before we could get it harvested and it was cut for the grain. This field was cut later and a very fine crop of red and sweet clover and alfalfa was harvested. Now we have as fine a stand of these plants as I ever saw. In fact it is the only thing on the farm of which I am really proud.

Not having so much silage as usual we will winter only 117 cattle besides the teams. This will be fewer cattle than we have wintered for twenty years.

Mr. M. J. Morrison, who has been my partner for eight years, is leaving because he is offered a better job. We are now invoicing the feed, stock and machinery and I am taking it over. The inventory will amount to over \$14,000. Mr. Morrison came into the firm in 1920, which proved to be a very bad time for him to buy, but he may be going out at a very propitious time for him.

I want to recommend Mr. Morrison to his new employers as being strictly honest and one of the most industrious, efficient and agreeable men I ever knew.

The New Man

Mr. David Kerns of Lewis county becomes the manager of Woodbine farm and the other two farms in a few days and I hope he will hold the job as long as Mr. Morrison has had it. I am indebted to Mr. C. R. Underwood, county agent of Lewis county, for discovering Mr. Kerns. He works on a salary basis.

Herefords for Russia

Fifty-seven pure-bred Herefords left England for Russia on September 22nd. This is the largest individual shipment of pedigree animals of the breed from the British Isles since the days of the North America boom and is regarded with mixed emotions by the Britishers. They see in it not only a promising market for breeding stock but a probable competition with their own livestock production, for no one can tell what will come out of Russian developments. The present shipment was purchased by a special commission of the Russian Department of Agriculture and is intended to form a nucleus for the establishment of a large number of breeding stations throughout Russia to restock the country with cattle and improve the native stock generally.



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Clover Fills Gullies

ON OUR farm was a steep hill which was badly washed when we began the farm. For a long time we had been using brush, etc., into the washes but did not make much headway in filling them permanently. One spring I took some Bermuda grass seedlings and planted alongside the gullies near the top so that the first rain would not wash it out. I also took a handful of unhulled sweet clover seed and dropped it among the Bermuda.

I had a bucket of rich dirt dug up along the barnyard fence. I scattered this over the roots of the grass. The grass held and some of the clover grew the first summer. Every time I passed by I would take a handful of sweet clover seed, gathered from the wayside, and scatter it around over the rather pump-looking Bermuda sod. The next spring the sod looked much better and there was sweet clover everywhere.

The second summer the clover began to seed and today those gullies have just about disappeared.

I prefer this method to filling with brush, because when the washes are filled you have a permanent pasture instead of a collection of all kinds of weeds which the brush catches.

ADDA C. HALL.

The Biggest Bee Hive

AT Mountain Grove, Luzerne county, Pa., on the farm of Stephen Hutton is a bee hive about 16 feet square and ten feet high. It was built for a garage. One day Mr. Hutton set a deserted bee hive without a bottom based on a few cross pieces in the loft. During the summer a stray swarm of bees, finding the hive with the combs ready built, took possession.

The bees soon filled the hive and extended their combs below the loose ceiling of the garage and now have a cluster of combs as large as a dish pan directly in the center of the garage above the roof of the car. They are expanding this in all directions and at the rate of growth during the clover and buckwheat honey flow it would not take long to fill the garage. So far as known these bees have not swarmed since taking possession of their big home.

Last fall as the cold weather came on the bees used up the honey in the outside combs and gradually withdrew into the old hive as the temperature went lower. There are enough bees in this colony to fill three ordinary bee hives.

This goes to prove that the average size is too small for the natural development of a colony of bees. The beekeeper in his efforts to force the bees to store honey in the pound boxes has so reduced the size of the brood nest that good strong hive colonies are hardly possible.

With such a hive full of stores and a good queen a colony will build up rapidly in the spring and have a large force of bees ready at the beginning of the honey flow. Such a colony will store from five to ten times as much honey as one confined to the cramped quarters of an eight-frame hive.

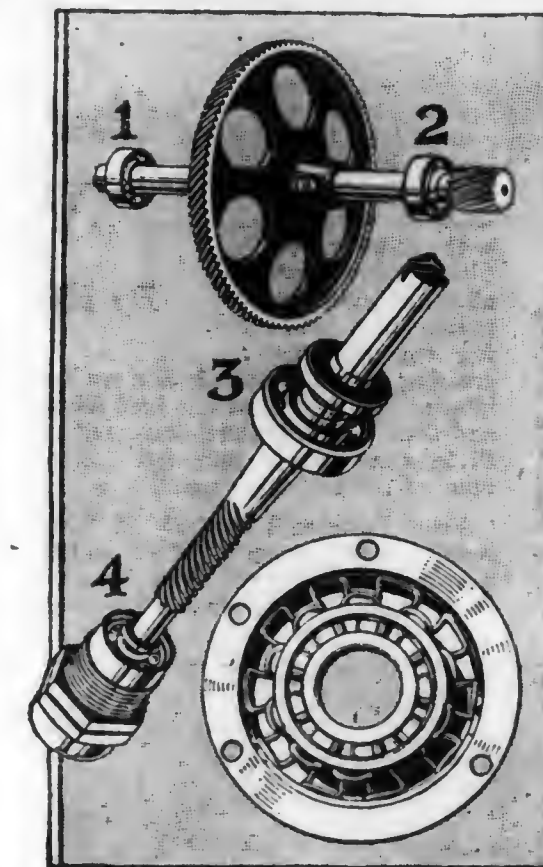
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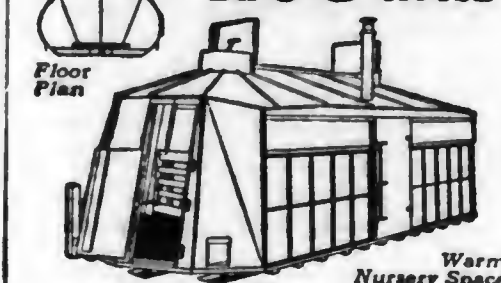


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See for yourself by asking the local dealer to bring a McCormick-Deering Cream Separator out to your farm, where he will set it up in your milk house or kitchen and demonstrate it on the milk from your cows. You can look it over, listen to it, and try out its easy operation. We are confident you will agree that the McCormick-Deering is a beautiful machine, inside and out and through and through.

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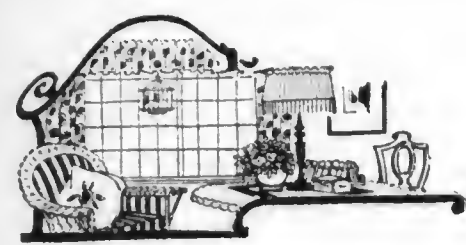
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The Farm Home



Autumn's Tonic, The Healthful Cranberry

By GERTRUDE S. STEWART

THAT oft-neglected touch of color on the table, necessary balance to the well-rounded diet and "pep" for the November meal, is well provided by nature. She sends us at this season the crisp, rosy cranberry, so full of minerals and carbohydrates in tasty disguise. Cranberry Sauce is delicious served with all meats and game, while roasts of veal, pork and fowl are not at their best without it. No other sauce is so quickly and easily made. Merely pick over and wash four cupsful of cranberries. Then add one and one-half cupsful sugar, one and one-third cupsful boiling water and cook. After the mass is boiling thoroughly, cook slowly ten minutes.

Cranberry-Apple Relish.—Occasionally with your roasts or game dinners, try this uncooked relish. Grind together one cupful apples, one cupful cranberries. Add one cupful sugar and mix thoroughly. It is then ready to serve. We like it with pork chops and sausage, too.

Clear Cranberry Jelly.—A tiny mould or square cut from cranberry jelly adds a most attractive finish to individual salad plates for the evening party or the full dinner. Such color gives gay garnish and an appetizing bite to the family salad platter whether made of fruit or vegetables.

To make perfect cranberry jelly, cook two quarts of berries in just enough water to cover. When soft, strain through a sieve, and to each cupful of juice add one cupful hot sugar. Stir while boiling quickly, and jelly will form almost immediately. Pour into bowls to harden. Or if desired, you can pour into sterilized jelly glasses and seal. This jelly keeps indefinitely and is as good in summer as winter.

Cranberry Jam is another choice goodie for the empty jelly jars. You will need one quart cranberries, one and one-half cupsful water, two cupfuls sugar. Grind the berries, using medium blade of meat grinder. Add the water and boil six minutes. Now add the sugar and boil three minutes, stirring constantly. Isn't that simple? And it's ready for supper spread or for storing away in jelly glasses until needed.

Cranberry-Celery salad is pretty and very delicious. Prepare four cupfuls berries. Add one cupful water and cook until berries are very soft. Then press at once through fine sieve. Add two cupfuls sugar and cook again until the sugar is thoroughly dissolved. Let cool, and when stiffening starts add one-half cupful diced celery. Pour into wet moulds. Serve with mayonnaise dressing on crisp lettuce leaves.

Cranberry Sherbet.—One of the prettiest ices served with a rich dinner is cranberry sherbet. To make it, cook one quart cranberries in two cupfuls water until soft. Press through a fine sieve. Add two cupfuls sugar while berries are still hot. When sugar is dissolved add strained juice of two lemons. Fold in the stiff-beaten white of one large egg. Freeze like any sherbet.

Cranberry-Raisin Pie has twice as many food calories as rhubarb or pumpkin pie, and is most appetizing. The recipe calls for one cupful chopped

cranberries, one cupful sugar, three-fourths cupful water, one cupful seeded or seedless raisins, one tablespoonful flour. Bake between two pastry sheets. There are many ways to use this tart little berry and add piquant variety to your daily menus. My home is just as the edge of cranberry-growing territory, and the bogs are most interesting. Not a bit more so though than the interest the cranberry adds to your dining table.



Gathering Cranberries in a Picturesque Bog in New Jersey

Choose Shoes Carefully

MUSCLES in the feet need plenty of exercise and a rigid shoe which restricts the muscles can cause weak feet, says the New York State College of home economics. The bones in children's feet are easily molded in the right or the wrong way and therefore the greatest care should be taken in the selection of their shoes. A shoe that is unnatural in shape brings about foot distortion. Shoes should allow each toe to be straight, and all parts of the shape of the foot are flexible from toe to heel, and encourage correct posture by keeping the foot in the right position. Cornell's bulletin E-149 discusses feet and shoes, and may be obtained by writing to the publications office of the New York State College of Agriculture, Ithaca, N. Y.



Cranberries Are Carefully Sorted before Ready for Market

Can We Win the Next War?

By HEPSY NEFF

AMERICA, absorbed in developing its great natural resources, has only begun to realize how helpless it is against multiplying insect enemies. Once a vast number of birds were our allies, fighting our battles and holding our ever increasing enemies in check. But we have ignored and destroyed our bird friends and their numbers have decreased until in many places they have almost reached the vanishing point.

From Farmers' Bulletin, 1239, "Community Bird Refuges," put out in 1921, the best figures that could be given for our average bird population in the

United States was held in Ithaca, N. Y., in August, 1928, and to this Congress the greatest scientists of the world were invited.

At this meeting Dr. L. O. Howard, senior leader in "house-clopy" in our Department of Agriculture, said: "Few people realize the critical situation which exists at the present time. There is a war between all humanity and certain forces that are arrayed against it; the bacteria that carry disease and the enormous forces of injurious insects which attack us from every point and which constitute our greatest rivals in the control of nature.... Let all the departments of biology in all our universities and colleges begin a concerted movement to train the men needed in this defensive and offensive campaign."

With the coming of winter comes the first opportunity of protecting our first line of defense, our bird population, by providing shelters and feeding stations. Farmers' Bulletin 1239, "Community Bird Refuges," offers splendid and detailed information that will insure success in these two lines. Sometimes birds could be fairly well fed and sheltered about our barns if it were not for the quarrelsome and fighting English sparrows. Farmers' Bulletin 493, "The English Sparrow as a Pest," tells how to win that battle of the war.

Rodents

Squirrels are another enemy of birds everywhere and squirrels have not yet proved themselves of any use in fighting insect enemies. In fact, squirrels and other rodents are among the worst enemies of the farm. Farmers' Bulletin 855, "Death to the Rodents," put out in 1920, not only gives facts as to the losses from these pests but gives detailed information as to the means of fighting them. The report of a cooperative drive against ground squirrels, gophers, prairie dogs and black rabbits by the farmers of a section of the West, tells of four tons of live traps (which includes rats and mice) and a total yearly loss from these pests of \$300,000,000. Such figures are staggering, but the reports of rodents are a gain of \$15 for every dollar lost in the fight against rodents. Let us remember that the farmer complains of each rodent that fails to come in with its share of steadiness as the income of a worker whose wages do not cover his losses from so many enemies.

A big business, too, has it is the best brains of the business. But are not able to prevent the loss of the field constantly, studying the means of avoiding loss. The Department of Agriculture keeps its experts second to none in the study of the farm as well as ways of promoting gains for the farmer. We have laws to protect our crops and our feathered friends. So, let us learn to know both our friends and the enemies of agriculture, and there are some surprises in store for us there. But no help can come until we begin to help ourselves. Winter evenings invite much reading. Some good day we shall all learn what is best for us and become a law-abiding people. Then we shall cooperate with our government in our own best interests and win for all workers more health and more prosperity.



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overweight without a toll. And when it's so easily made, why not have it? It is designed in sizes 16, 18 years, 35, 38, 40, 42, 44 and 46-inch bust measure.

It is especially attractive made of one of those exquisite sheer printed velvets in scatter dots of grey on black background, for it will meet so many daytime requirements smartly. You'll also like it made of black hosiery crepe satin with the reverse side of crepe used for tunic, dull navy blue flat silk crepe with matching sheer velvet tunic and shoulder bow, tobacco brown canton-tail crepe, sapphire blue sheer velvet and black crepe Elizabeth. Size 36 requires 4 1/2 yards of 40-inch material. Pattern price 15c in stamps or coin (not enclosed). Address: **Pattern Department, Pennsylvania Farmer, Pittsburgh, Pa.**

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Winter Comforts

Preparations for your winter comfort should not be delayed a single day more. You can never tell how quickly the cold chill of autumn days will bring the urgent necessity for ample heating equipment. Both common sense and good health demand that your home be adequately supplied with plenty of heat to offset the chill and cold of winter.

To be sure of this protection, come to a "Farm Service" Hardware Store and let us help you solve your heating problems, especially if you need new equipment. You will find our conscientious, personal and friendly service a tremendous benefit to you. In "tag" stores you are sure of dependable merchandise, money-saving prices and a personal interest in your welfare that helps you make the selections that will really give you lasting satisfaction. Come here for all kinds of heating equipment, for repair parts, portable heaters, weather stripping and other winter comfort necessities.



Look for the Sign of the 'tag' in the window.

Spring Flowering Bulbs

By EMIL KANT

"Though not a whisper of her voice we hear,
The buried bulb does know
The signals of the year,
And hails far summer with his lifted spear."

A WRITER long ago said, "there be delights that will fetch the world around from sun to sun, and rock the tedious year as in a delightful dream." The greatest of such delights may come to us in the growing and caring for bulbous plants. Hardly anything will repay our efforts with a greater return of pleasure than the growing of spring flowering bulbs in the house. What can be more cheerful and more pleasant to look on during the dreary months of December, January and February than pots of well-grown tulips or daffodils? Flowers of any kind in the home are delightful additions to the general scheme of decoration. How much more delight can therefore be derived by having living, breathing, flowering plants that will last for as long as six weeks? Surely then, such a possession is worth all the effort and care that we can bestow on these plants.

The ways in which these plants are grown and cared for are various. For example, bulbs can be grown in soil in pots and pans; they can be grown in water; they can be grown in sand and in moss, and they can be grown in cocoanut fibre. Different bulbs are better adapted for one of these means of culture than others but surely here is a variety of conditions that would suit almost any home.

The Common Way

The most common and also the most satisfactory method of raising bulbs in the home is to grow them in pots of soil. Naturally this method requires a little more preparation than any of the other methods; it gives greater returns in the matter of good healthy plants and flowers than any of the other methods and is therefore worth trying when conditions permit. One of the important items to remember about pot culture of bulbs with soil is the composition of the soil in which the bulbs are planted. The soil should be prepared at the time of planting and should consist of good, clean garden soil with an addition of sharp, clean sand and some leaf mould or well-rotted manure. The addition of the sand is to make the soil porous and to prevent it from becoming water-logged and sour. As bulbs require a great amount of water during their growing period, the addition of sand is of utmost importance.

Sometimes as many as a dozen bulbs are placed in one pot, and naturally a soil much richer than the ordinary garden soil is required to fully develop the plants; hence the addition of manure. A good proportion for potting soil would be one part of leaf mould or manure, one part of sand and one part of garden soil. After this soil mixture has been prepared, the potting of the bulbs can begin.

Drainage Is Essential

In the bottom of each pot should be placed some material to secure proper drainage. Often broken pieces of pots and crockery are used for this purpose but a better material to use is moss. A layer of moss about an inch thick should be placed in the bottom of each pot and on top of this the already prepared soil. By putting a few small pieces of charcoal in each pot the soil will be prevented from going sour.

The bulbs should be set in the pots so that their tops are just about

even or flush with the edge of the pot. Now the pots can be placed on a table outdoors and watered thoroughly, thus allowing the soil to settle firm before the pots are put away for storage. They should be allowed to stand in this position for about one or two days.

And now comes the most important operation of all: namely, that of storing the bulbs until the time they are brought into the house. The difference between good and poor flowers is dependent entirely on successful and proper storage. No matter how rich pains have been taken with soil preparation, drainage and good stock it is impossible to secure and hope for to expect satisfactory plants unless the bulbs have been stored in such a manner as to allow proper root development before the pots are brought in the house for forcing.

How to Start Bulbs

The most widely adopted manner of storing bulb pans is to place them in a cool cellar, preferably one with dirt floor, and then cover the pots with at least five or six inches of coal ashes, allowing the ashes to settle down between the pots. Pans put away in this manner can be felt undisturbed and it is time to bring them into the house. Another way of storing the bulb pans is to dig a pit or a trench in the garden about two feet deep. In the bottom of this trench put about two inches of cinders for drainage and then place the pots on top of this layer. In the trench with soil and cover the ground with a 12 to 16-inch coating of fresh manure, if available. In absence of manure any other material can be used for a mulch to keep the soil from freezing. Manure is the best and has a tendency to add food to the soil as they are forming root systems.

Under normal conditions the bulbs will form a good root system in about eight or ten weeks. It is then time to fetch the pots inside and to let the plants make some top growth during the first few days in the house the temperature should be moderate and even. The plants should be watered freely but not in excess. The ideal temperature for growth is between 55 and 60 degrees Fahrenheit. Care should be taken not to let the plants suffer injury from frost during the nights and a safe way is to move the pots from the windows to the central part of the room during the night. Forcing of bulbs can begin in September and can be continued for each week until the middle of December. By allowing each batch to remain in storage for eight or ten weeks flowers can be had in the house from Christmas until the first spring flowers begin to appear in the garden.

Best for House Culture

Some of the bulbs best adapted for house culture are as follows:

Narcissi: Paper White, Yellow, Paper White, Trumpet Narcissi, Golden Spur, Empress, Emperor, Milan Graaf, and Glory of Leiden. Among the Narcissi Comparabilis we find that Sir Watkins, Lucifer and Double Sir Watkins are best for forcing. Pheasant's eye or Pearls of Eye is another good variety.

Tulips: Single Early Varieties including Brilliant Star, Golden Queen, Golden Kroon, Lady Beatrix, Lady Tresor, Pink Beauty, White Beauty, White Hawk and White of Austria. Double Early Tulips: Blue Celeste, Blue de Niege, Murillo, Dutch Blossom and Dutch Cottage Tulips including Colorado, Fairie Queen, Innocence, Miss L. (Con't on page 25)



Canned Meat for Winter

By HILDA RICHMAND

Housewives realize the necessity of canning meat for winter. Work is pressing, and it is so handy to open a can of roast beef and gravy in a few minutes, but few of them think of the great saving in canning for winter. Winter days are busy ones, and it is no easy task to be able to open a can of fresh meat when company comes unexpectedly. When there is sickness in the house, no small asset. There are many occasions in winter when the canned meat comes very handy, besides saving as it does much that would otherwise go to waste.

A strict school teacher hoarding in country homes, and invited out to other country homes where her pupils lived, a young farm woman said she was asked many times by the "old" ones to can meat. It is possible that families themselves would say that one reason why they tire of meat so quickly in winter is that it tastes old. It is not spoiled, but old, and has a peculiar flavor that nobody likes. Unless sausage is smoked or canned or pickled down in fryings it quickly deteriorates, and every direction for canning says that the meat should be canned as soon as it is cooled after butchering. To let pork or beef lie a week or two and then expect to get good results from canning is to be disappointed always.

Really a Saving

In spite of the work it involves it is well to can not only enough for summer use, but everything else that is likely to get stale. The nice little trimmings of beef will be fresh and good served in soup that was canned, but if allowed to lie around and get that drab, faded look that beef gets in long waiting in winter nobody wants to eat them. Meat is high, and every good piece should be used, so canning solves the problem. A good way is to have the butchering spread out and eat all in one day. It makes more work, but the family is not surfeited with beef and pork in profusion at once, nor does the butchering day lay every one out because it is so hard.

Some women think it wastes time to can meat to be opened two or three weeks after butchering day, but it is really a saving. I have seen housewives take down a half smoked ham and cut into it when company came unexpectedly, because they felt that the "old" home meat the family had been eating was not quite good enough for guests. A can of good meat, not necessarily a choice cut, would be a real economy. Small bits of beef well cooked in jelly or in jelly gravy may be trimmings, but they make a delicious stew in half an hour for company or the family.

They Can It Quick

These are good housewives who begin opening canned meat within two weeks after butchering day rejoicing that saving or visiting or anything else can be made more enjoyable because there is extra meat preparation for the day. In one day after the meat is cooled they turn out dozens of cans of shadily packed meat, discarding bones and fat and waste, so that when it comes to the table it is all meat. In the same way chicken is disposed of when the fowls are in their prime, and no tough old fowls or hens ever come on the table. Long even cooking, discarding the waste bits, omitting the livers and picking carefully will give prime chicken at a few minutes notice. My vote goes to canning for winter as well as for summer as it is economical easy



And now for you ~~~ a first Thanksgiving Day

SUPPOSE you had been there on that first Thanksgiving Day. A handful of pilgrims alone in the wilderness, facing a bitter winter... their cabins damp and cold and dark. Knowing that each day they must journey down that long path to the frozen spring... beset by lurking dangers.

And yet there alone in the wilderness they offered thanks for what had been given them... thanks for the crops that had ripened... thanks for the strong stockades.

Think how much greater would have been their thanks, if, like you, they could have pressed a magic button and flooded their homes with brilliant,

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Think what Delco-Light would mean to you on Thanksgiving Day, 1928!

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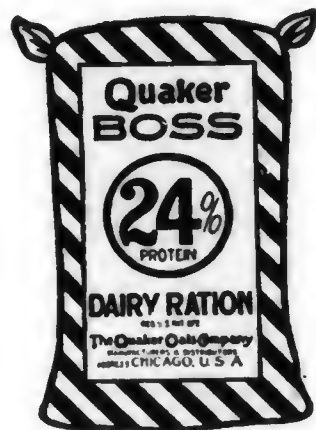
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BUY THE FEEDS IN STRIPED SACKS

Side Draft on Plows

By C. W. DUPPSTADT

THE side draft on grandfather's plow when reduced to figures gives some surprises. It seems natural that three horses should pull a plow with less effort per horse than two. However, often the opposite is true as we shall see. Figure 3 gives the shortest possible three-horse even for a 12-inch plow. With the clevis in the last hole the even is still held five inches from the natural line of draft, and is offset 11 inches on a plow with a three-foot beam. This gives a side draft of 16 inches, equals 24 degrees, equals 26.3 per cent. Therefore 26.3 per cent of the power is being used to pull the plow out of the ground sideways away from the furrow, and 73.7 per cent of the power remains to move the plow forward, cut the ground loose and turn it over. Reducing to the part of one horse's work it is seen that 8 is used in side draft, leaving only .2 of the horse's power to add to the work of the two horses. If a wagon even is used (as I have seen done) the third horse bar must be lengthened, so that the line of draft is thrown out so far that the side draft is more than the third horse will pull, and the other two would fare better if he were hitched to

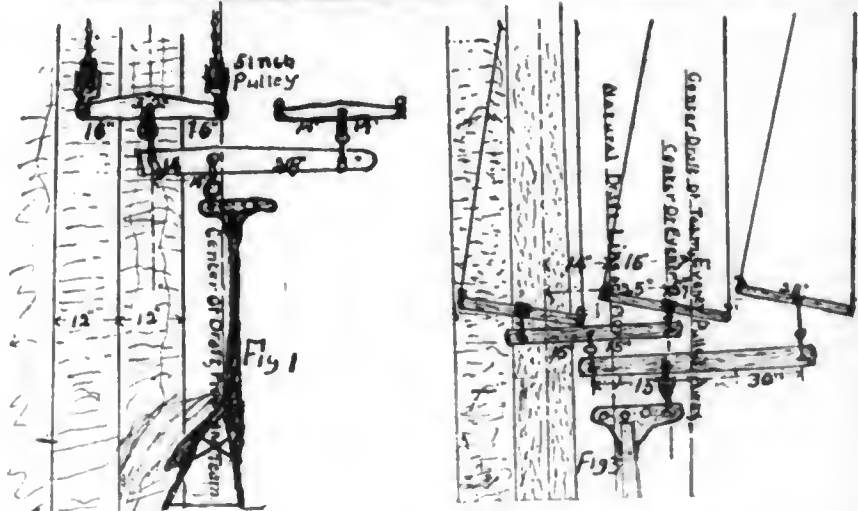
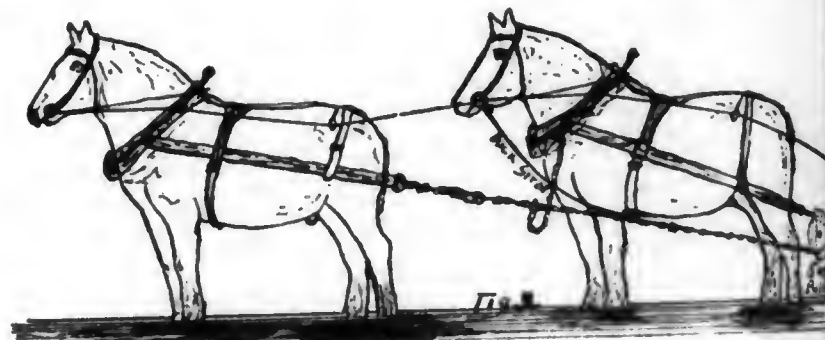
furrow when there is no side draft. Sash-cord line is used to direct the front horse, buck the hind furrow horse back by a strap from his bit to the draft chain of front horse. Buck the outside horse by running a strap from the inside bit ring to the crupper of the furrow horse, and a spreader strap ("jockey") from the hames of furrow horse to outside bit ring. (This work on a colt which has never been hitched.) This will hold the team almost perfectly in line.

The even shown in Figure 3 would do for a harrow, but would be better if the bars were lengthened to 18": 18": 36", or even a wagon even and a 21": 42" bar will give the horse plenty of room for air and turning.

Loss of Power

It is impossible to hitch three horses abreast in a plow, corn harrow, binder, mowing machine or wagon (less the tongue is offset and center even hitched to center of axle) without the greater part of the third horse's power being lost in side draft.

Presenting the problem in another position we see that hitching a



the fence and they were pulling the plow on an even only 28 inches long, with the ends of the 28-inch singletrees touching. If the evens are longer than this there will be a side draft even with only two horses. With an ordinary wagon doubletree it will amount to a loss of .22 of the power of one of the horses in the team.

On a 14-inch plow the center of draft would be 2 inches nearer the center of the team. This will reduce the side draft so that .11 additional pull would cut two inches more. The side draft on the 14 inches would be 23 per cent or .69 of one horse's work.

For a Straight Pull

Now, if grandfather had instead of hitching three abreast taken a good heavy singletree and fastened a 5-inch chain passing pulley on each end and hitched as illustrated in Figures 1 and 2, allowing two horses to walk in the furrow, he could give his outside horse plenty of room for air and to turn, and use all the energy of the three horses to move the plow forward. By applying the power in this way his horses would pull a 16-inch plow with less exertion than they pulled the 12-inch plow when working abreast, and be easier to drive, since two walk in the

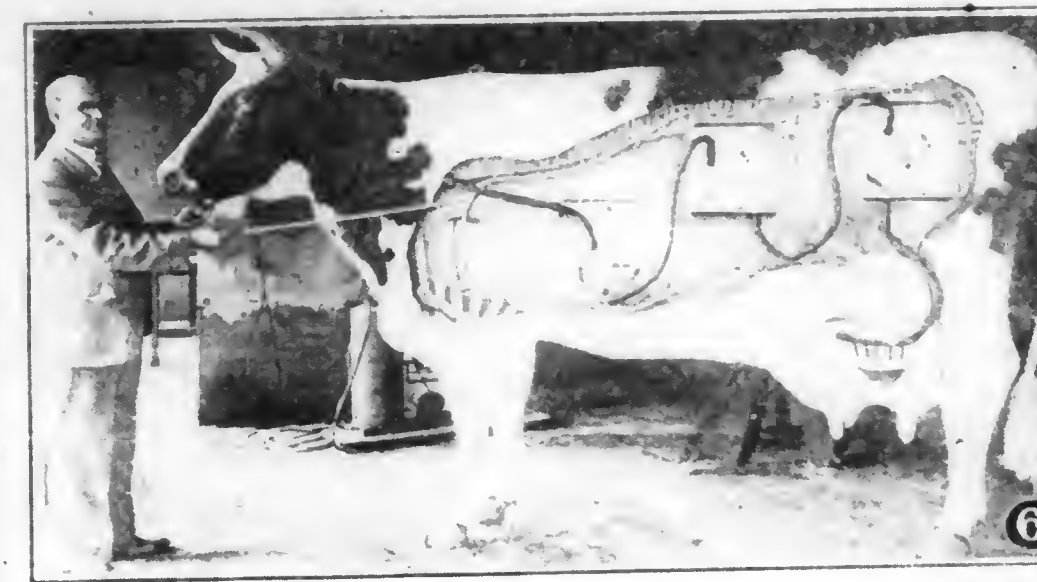
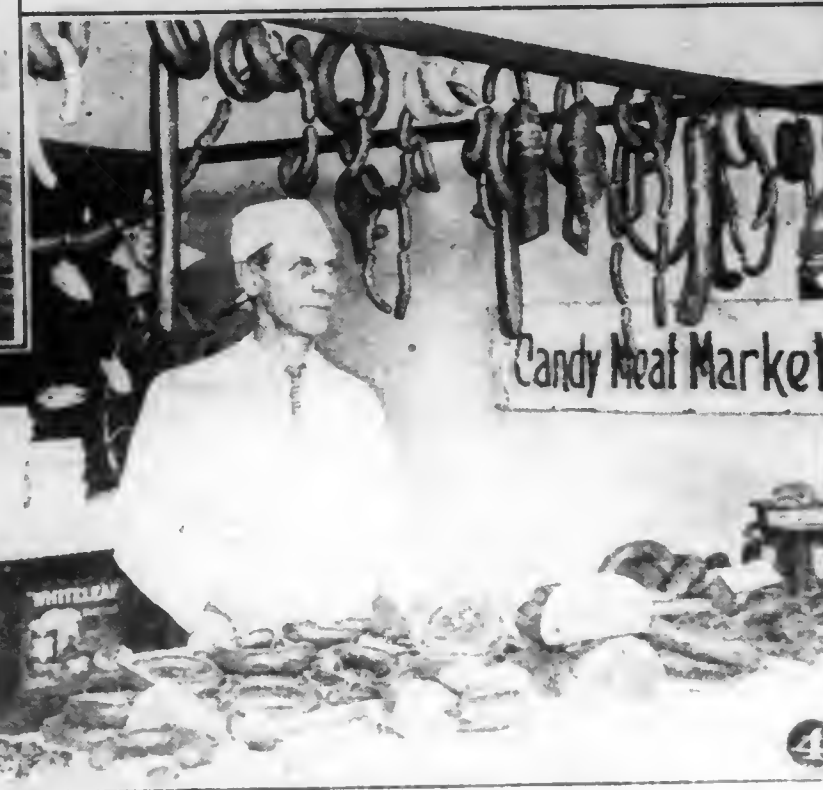
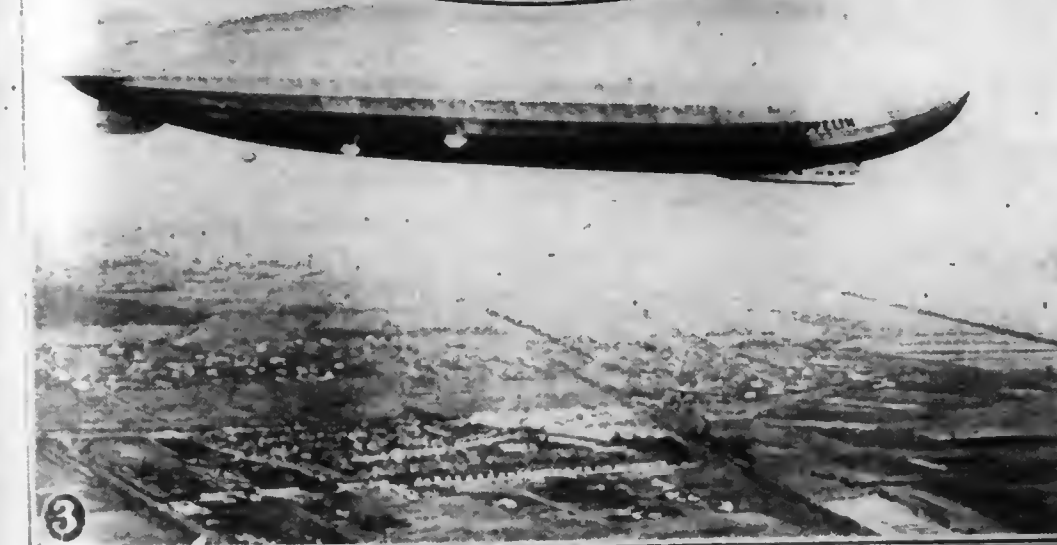
horse abreast on a 12-inch plow only (with even in Figure 3) 26.3 per cent of his power will be added. With if hitched as in Figures 1 and 2, entire power will be added when plow ahead. (The bar must be lengthened 16": 32" for the 14" or a reverse draft will result.)

FARM BUREAU FEDERATION MEETING

THE annual meeting of the American Farm Bureau Federation will be held at the Hotel Sherman, Chicago, from November 7 to 12. This being the 10th anniversary of the launching of this organization, special plans have been made to make the meeting memorable. There will be among the topics presented: Censured. Utilization of agricultural cooperative production and distribution. Farm products are a few of the subjects which will be explained by prominent speakers.

A new feature of the meeting will be the public award of distinguished service certificates to two outstanding farm figures, a man and a woman, the identity of these first winners will be on the Farm Bureau Roll of Honor.

EVENTS CAUGHT BY THE CAMERA



(Copyright by Andrew A. Anderson)

of the Treasury Andrew W. Mellon at the microphone of Station WRC, where he delivered a half hour talk. The radio has brought public officials with a greater number of people than in the case in previous history and it is in a better understanding of the government which that government is to serve.

at you can't rock—the Dippy Boat—all circular in construction. It is kept afloat by a pump and is propelled by hand—driven by a man. It can hold eight persons and is designed

for safe pleasure on water.

3. The Graf Zeppelin as it appeared in its last trial flight, which included a visit to England, before crossing the Atlantic. This giant lighter-than-air machine last week completed a successful round trip by crossing the Atlantic eastward, incidentally setting a new record for the trip of 69 hours for the homeward trip of 4,003 miles. This is the first round trip commercial air crossing of the Atlantic.

5. Commander Richard E. Byrd bidding farewell to his mother at Winchester, Virginia, via the long distance phone, before sailing with his Antarctic Expedition from Los Angeles. A special set of wires

were run out to the ship to enable him to make the call.

6. One of the most unique candy stores ever seen is the "Candy Meat Market" which is run by Jim Crowe in the loop, Chicago. People stop, look and listen before they enter, because everything in the store looks like meat, when in reality it is candy.

6. A most remarkable cow, partly dissected to disclose the various processes of transforming its food into milk, and which speaks in a loud and commanding tone of voice has just been completed by the Department of Agriculture at Washington, for exhibition purposes. She was shown at this year's National Dairy Show.

be turned over to him."

Price Price price but

THE little you save through buying cheaper feed may cost you loads of money when you figure the danger to which you expose your herd with feeds that are made to sell cheap—rather than maintain health and milk condition.

Feed doesn't have to be rotten before it produces ill effects in your herd. Ingredients not good enough for quality feed escape detection when mixed in feed that's "just as good only cheaper"—until poor condition and disease reap their toll in your herd and your profits.

Cheap Feeds Cause Trouble

Constipation, indigestion, inflamed udders or off-feed conditions are caused by improper feeds or by feeds carelessly mixed or made from off-grade ingredients.

Don't save pennies on a sack of feed and lose dollars through off-condition and poor milking cows. Feed Larro—play safe—make every cow produce at her very best.

Thousands of dairymen—some who feed timothy and others who feed clover and still others who feed alfalfa, have found that Larro is the ration which keeps their cows in the best of health, in the pink of milking condition, and therefore leaves more money after feed bills are paid than any other ration.

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Farm & Dairy By L. W. LIGHTY

"Our Pure-Bred Holstein Cows Keep Us"

I HAVE a friendly letter from northern Pennsylvania and in large black letters on the letterhead stands the above informative thought. I knew the writer long ago. He was enthusiastic then and his enthusiasm seemingly has not abated, because after a few generalities he begins to tell me about the breeding and production of his cows. Breed from profitable producers and you will have a high percentage of profitable progeny and above all always keep a sire that is "doubled up" in lines of profit-producing ancestors and you have a wonderful assurance of progeny that is profitable enough to allow you to put the legend at the top of your stationery "Our Pure-Bred Cows Keep Us."

This man loves his business and lives with it and succeeds.

The Man Who Loves His Work

rarely fails as far as my observation goes. I have a friend in central Pennsylvania who raises turkeys right in the region where blackhead and bluehead and 57 other varieties of troubles kill the poult like November weather kills flies and yet this man grows to maturity 90 to 95 per cent of his poult. But he knows his turkeys and he names them and when he calls them by name they respond, showing they know their names. In other words he knows the needs of the turkeys and supplies it and is very successful. The turkeys help to keep him.

My friend Abraham Lincoln Bierholder of the far-famed Cumberland Valley, Pa., has talked to thousands of folks about alfalfa and never tires, and he has talked to the alfalfa and the alfalfa has answered, so he knows many uncommon secrets of alfalfa growing. It is no exaggeration to say alfalfa grows on his land like a weed. The reason alfalfa thrives for him better than for any other man I know of in this eastern territory is because he delights wonderfully in it and is wrapped up in its production.

Do not misunderstand me, a man need not become "cranky" about his work to love it and succeed. But if he despises and hates it failure is about assured. I have all manner of assurance that animate things respond to our confidence, our faith in them, and Lindbergh's experience indicates that even inanimate things do this. A lack of faith spells failure everywhere.

On the farm here we are engaged in painting and so we think about it and we like to write about what we do and think about. Much has been said about how paint protects wood and metal. The other side also has been presented. I have not decided which is right. I have seen paint scales come off metal and it was corroded under the paint; I have seen wood rot under a coat of paint, but also seemingly the other or protection side was clearly indicated in other observations.

But I have an entirely different reason for keeping a fresh coat of paint on the buildings in so far as possible. I am anxious to indicate to the outside world that I do not belong to a semi-prehistoric race who knew nothing of aesthetics, who had just emerged from the cliffs and caves. Did you ever drive through a section where buildings were generally unpainted and often in bad repair? How did you size up the folks of that section? Did you stop long enough to learn if your estimation was correct? I did and found it was. Then you struck a section where all the houses and even the barns were in good paint and you found quite a different people.

Say what you will, it pays well to hold the respect and esteem of the outside world. Paint judiciously used will do wonders in this line. I have young female friends who assure me privately that I am right.

Out of Our Garden

After the middle of October the garden usually is at an end, but from ours we took prime sweet corn, heads of lettuce, endive, cabbage, the sweetest tender turnips, and the finest young bok we ever grew. Ideal weather for peas, but they were eaten earlier.

I note a great discussion in some papers about eating pea pods and the U. S. Department of Agriculture is investigating. Let them come to southeastern Pennsylvania where the "Pennsylvania Dutch" do the cooking and they may be fed on pea pods cooked with the peas and wonder why the peas are so much more sweet and have such a fine flavor. Snap the pods as you snap bean pods and put the lining from the pea pods and the rest of the pod cooks very tender with the peas and adds flavor and sweetness and nourishment to the peas. Your good cooks have done this for centuries, but the editors and scientists must investigate.

Don't Kill the Goose That Lays the Golden Egg

In some rare moment of inspiration some unknown person invents a name for a most delectable something con-



CHAMPION GUERNSEY COW AT NATIONAL DAIRY SHOW

Imported Gem's Pride of Gron, shown above, was made grand champion Guernsey female at this year's National Dairy Show. She is owned by J. Penney, Emmadine Farms, N. Y., and has been grand champion at leading fairs since this year.

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Hay Fed with Corn Silage	Timothy or Prairie	Mixed Clover and Timothy	Clover	Alfalfa
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Ground Corn, Hominy or Barley.....	200	200	200	200
Ground Oats.....	300	200	200	300
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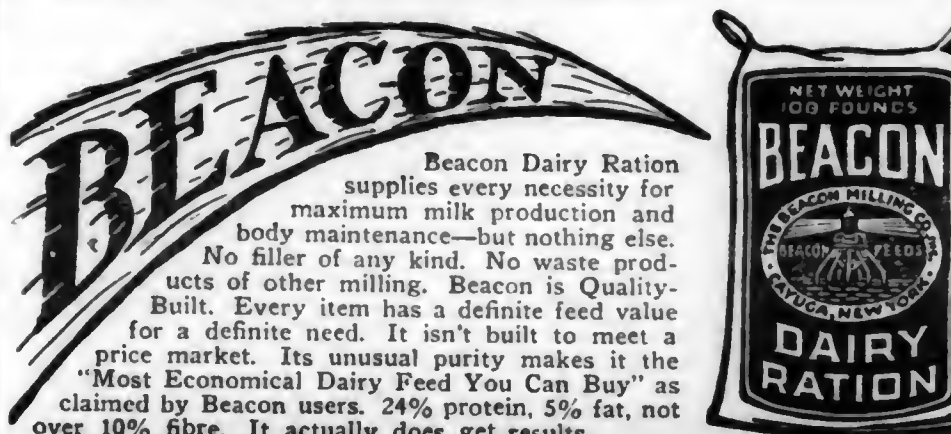
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2 fresh cows with calves at side; 4 close springers; 8 in heavy flow of milk; 4 cows to freshen between January and May; 6 heifers to freshen in April and May; 1 well-bred, three-year-old herd size; All the above have passed two successive tuberculin tests. Last year calves: 125. 1 good, ruin work home, 13 years, 1,500 lbs.; 1 Percheron colt, 3 months.
ALSO THE FOLLOWING STOCK OF THE F. R. BARCOCK ESTATE, VALENCIA: 13 good Holstein grade cows, pasture bred to registered Guernsey bulls; will freshen in April. 2 good Guernsey grade cows, bred to same bulls; 1 registered Holstein bull, 8 months old. The above (excepting tuberculin tested) 2 pair bred to same bulls; 1 registered Holstein bull, 3 years; 1 heavyweight hunter, 3 years; 1 lightweight hunter, 4 years; 1 heavyweight saddle horse, 10 years; 1 lightweight saddle horse, 8 years; 1 five-year-old colt, not yet broken to saddle.
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Farmer's Business Letter

ACCORDING to the general run of reports business prosperity is at a high tide, with a promise that 1928 may exceed the record year of 1926, from the standpoint at least of corporation profits. Measures of business volume which appear to be headed for new high records this year are as follows: Checks cashed at banks; industrial use of electric power; building construction; steel production; automobile production; agricultural implement output; copper production; tin deliveries to mills; cement production; flour milling; gasoline production; industrial use of rubber; electrical appliances output; airplane production; and motor boat output.

At the same time there are some industries where conditions are not so good, notably in the coal industry, textiles, railway car and locomotive builders and pulp and paper manufacturing.

The record of corporation earnings, for the first nine months of the year, shows, in numerous lines, substantial gains over the same period last year. The following increases, in terms of percentage, are noted: Amusements, 84 per cent; automobiles, 29.2; auto accessories, 32.3; building materials, 5.9; chemicals, 32.3; electrical, 19.9; flour and baking, 2.1; food products, 8.3; iron and steel, 14; leather, 71.4; machinery, 11.9; merchandise, 21.8; metal mining, 21.7; office and household equipment, 7.3; paper, 19.9; petroleum, 29.2; printing, 20.2; textiles, 23.9. It is to be borne in mind that these are percentages. In some instances, notably in textiles, petroleum and paper, profits were small last year, and while a considerable increase is shown for the nine months this year, the total is still small.

Commenting on employment the head of a firm that employs several thousand men says:

"We have large reconstruction programs in process of execution at the present time which will greatly increase our capacity, but I think they will not require any additional labor. In fact, I think it is more than likely that we have more labor in our employ now than we will have after these projects are completed, due to the character of the labor-saving devices which we are putting into effect. We are doing in a general way only what nearly all well-organized and managed manufacturing businesses are doing, and I have no doubt that these changes that are so widespread in industry today are sufficient to account for practically all the unemployment that now exists. I think industry, as a whole, is not ready for the five-hour day yet, but I should not be at all surprised if in some not so far distant day, it is quite extensively adopted."

Cattle Market Improves

The cattle market showed new life this week. Trade was active and prices advanced. Best steers were 30 cents to \$1 higher and others steady. The Kosher beef boycott in New York City was settled early in the week and this helped the shipping demand materially. Both heavy and light steers made an 81¢ this week, against \$7.25 and \$7.15, respectively, last week. The average price of stock was figured at \$14.75 against \$14.25 last week and \$13.85 a year ago. Butcher steers sold at \$17.25 and stockers and feeders were steady. Over 1,300 steers sold at \$17.25 or better during the week, against only about 200 last week. Receipts were about the same as last week, and weekly runs are among the largest for the year. The run of westerns is dwindling, about 13,000 being received this week against 17,000 last week. During October 67,000 westerns were received here, smallest for the month since 1924. It was the largest month of the year in the movement of stocker and feeder cattle to the country, some 37,000 going out. In spite of the advance in the fat cattle market this week, stocker and feeders failed to gain in price, demand being only moderate. Only a few choice feeders of fair flesh are quoted at \$12 or above. Bulk of sales are at a range of \$10 to \$11, with plain grades of light-weight packers down to \$8.50, and even lower.

Packers are looking for a liberal supply of beef this winter, feed being plentiful and a good number of thin cattle having gone to the country for feeding. There is not a lot of optimism regarding cattle prices the coming winter.

Hogs Advance

Developments in the hog market this week were encouraging. Trade was slow and prices lower early in the week, but there were steady advances the last half of the week, putting prices the last half higher than the previous week's close. The average price for the week was \$9.05, against \$8.45 last week, \$9.30 the same

week last year, and \$12.55 two years ago. Shipments for eastern slaughter gained over last week but are still below last year and two years ago. Average weight this week at 241 lbs., compares with 237 lbs., the average of the past five years. Receipts at the eleven leading markets this week totaled 408,000, the third largest since the middle of June, and comparing with 584,000 last week, 390,000 the same week last year and 536,000 two years ago. Fresh pork at wholesale are quoted at 15 to 22 cents, compared with 20 to 30 cents two months ago.

Hog receipts at 11 markets for October totaled 2,287,000 against 1,862,000 a year ago, 2,085,000 two years ago and 2,250,000 three years ago. There are only five larger October totals on record. The ten months' total is the fifth largest on record. The year 1928 will stand as one of our large years in hog marketing and slaughter. Exports of lard and pork products fell off in September as compared with September last year, though the total for the year to date is still ahead of a year ago. The exporters promise fewer hogs and larger exports for next year. The hog producer will be glad to see them make good.

It is evident that packers are not disposed to pay a high price for pork the coming winter. They are not optimistic about the export situation, and are afraid that hogs will come heavy and late, on account of the corn situation, resulting in a big yield of pork.

Lambs Lower

The western range lambs are nearly in, only about 85 carloads arriving this week, but the first of the lambs taken out for feeding from 75 to 90 days are beginning to come back. Liberal receipts run

largely to fat lambs, and the best lambs this week showed a loss of 75 cents to \$1, with \$1.50 to \$2 loss on the plainer kinds. Top lambs at the close of the week sold at \$13 against \$14 on Monday, and the daily average price during the week dropped from \$13.35 to \$12.50.

During the first half of August feeding lambs went out largely at \$13 to \$14, a few under \$13. Early this week these lambs returned to market were about breaking even, but at the quotations prevailing on the closing days they were losing money. Some feeders who brought in fat lambs took out feeders, at the lower prices now prevailing, hoping to even up. Some of the lambs taken out in August got a lot of cheap feed—grass and oats, particularly—and this has helped.

Whether lamb feeding this season will show the profits of the past few years. Some feeders complain that the western producers are getting their lambs too big, too big in the bone, so they grow rather than fatten, and it is hard to finish them at desirable weights.

New Corn Selling Well

New shelled corn on the market has been grading and selling better than growers expected. Sales from 70 to 85 cents a bushel are reported, giving those who are ready to sell some much-needed cash in hand. December corn (No. 2 or better) is quoted in Chicago at around 83 to 84 cents, and March in the neighborhood of 86 cents, indicating what the trade expects as to future prices. If somewhere near this level of prices persists during the winter months there will be less anxiety to feed corn than was anticipated a few weeks ago. At anything better than 60 cents corn can be grown at a profit even by farmers who are only fairly efficient.

Secretary of Agriculture Jardine is persistent in his optimism on wheat. In a statement issued this week he claims that Iowa banks show a highly encouraging increase in deposits in the consolidated statement of the 697 savings banks, 336 state banks and 13 trust companies under the state department of banking. The statement, made under the call of Oct. 3, shows a gain in deposits of \$10,434,434 as compared with the time of the last statement, June 30 this year, and a gain of \$12,392,684 compared with the corresponding period a year ago.

Iowa Bank Deposits

The Department of Agriculture announces that cooperative organizations had gross sales of \$2,300,000,000 last year. The total was \$1,000,000,000 less than in 1925, which was attributed to lower price levels, and with prices as high as in 1925 would have gone \$100,000,000 above the total for that year, the Department found. The report included figures for all 400 agencies marketing farm products. The cooperative business last year was divided as follows: Grain, \$680,000,000; dairy products, \$620,000,000; livestock, \$320,000,000; fruits and vegetables, \$300,000,000; cotton, \$97,000,000; poultry and eggs, \$40,000,000; nuts, \$14,000,000; tobacco, \$22,000,000; wool, \$7,000,000.

Dr. King Invited to Chicago

The Chicago milk marketing committee has appointed a committee to invite Dr. Clyde L. King, arbitrator of milk prices at Philadelphia and other cities, to come to Chicago and study the local situation. He may be retained as arbitrator here after he has made his survey of the situation. The fact-finding committee will obtain a report of the University of Illinois survey of milk production and distribution costs in the Chicago territory. In the meantime representatives of the Pure Milk Association and the Milk Vendors' Union declared they hoped a strike next winter can be averted. It is pointed out, however, that the large milk distributors are not joining in the meetings of the marketing committee. Producers in the Chicago territory are demanding a larger share of what the consumer pays for milk. It is claimed that in 1922 dealers shared equally with producers when milk sold at eight cents a quart. In 1927 farmers got five and seven cents; 1928, farmers four, dealers eight; 1929, farmers five and one-half, dealers eight and one-half cents. Last year and so far this year the average price paid the farmer for milk has been about five cents with the dealer price at 14 cents a quart, leaving the dealer nine cents.

Chicago, November 3, 1928.

N. J. Agricultural Week

THE fourteenth annual Agricultural Week to be held in Trenton from Jan. 15 to 18 will be of greater state-wide interest than ever before, according to plans discussed at a meeting attended by the leading New Jersey agricultural interests recently. Representatives of fifteen farm organizations, the State Grange College of Agriculture, Experiment Station and State Board of Agriculture attended the conference which was called by William B. Daney, Secretary, Department of Agriculture. The week's program will include a large Farm Products and Equipment Show, as well as the official State Agricultural Convention, at which two members of the State Board of Agriculture are elected and the annual meetings of fifteen state agricultural organizations, making Trenton the mecca for every farmer in the state during the third week in January.

The farm products display will prove of even more universal interest than last year. Attractive apple, corn, potato and sweet potato exhibits have been planned with attractive sweepstakes awards.

The farm equipment show will also be larger than ever and all types of machinery suited to New Jersey agriculture will be shown. Another great exhibit will be the poultry and baby chick show, no fatter being so large this year than in 1927.

November 10, 1928

Eastern Market Review

NEW JERSEY sweet potato growers are taking advantage of the pre-holiday demand and shipments from south Jersey are increasing. Dealers report a good supply from the central, western and New England markets. The first car of kiln-dried sweet potatoes was shipped from New Jersey for Chicago on October 25 and on November 2 a similar stock was quoted at \$1.75 per bushel on that market.

The onions are coming out of the storage in excellent condition and very little has been sold. The color is also running better than in former years. Joseph Dehnan, of Swedesboro, loaded the first car of sweet potatoes to be taken from storage this season. Some of the dealers here think the price level is too high and are not active in the movement of the crop, especially when Maryland and Virginia are offering lower-priced stock. The heavy, however, still hold the majority of the crop and generally refuse to sell for less than \$2 per bushel. It was reported that considerable was bought for \$1.75 during the week. The dealers estimate that values in South Jersey are around 100-150 bushels heavier than last year.

Official reports from Virginia indicate that the crop is more than half shipped but that while the earlier yields averaged 100 bushels per acre, later plantings showed considerable improvement. In Philadelphia motor truck reports of the best yellow and red varieties at \$1.75 to \$1.85 per 50 basket. In New York truck receipts from the Swedesboro area brought \$1.50@2 per bushel while the best Vineland sections brought \$1.50@1.75.

Potatoes about Steady

There was very little change in the potato market during the week. Prices in eastern markets were generally steady, though Chicago showed a weaker tendency. The shipping point markets reported a moderate but not heavy demand but prices were generally unchanged. Pennsylvania round potatoes were quoted mostly around \$1.75 per 50-pound sack in the East, with sales up to \$2 in Pittsburgh and Washington, D. C. Fancy well-graded stock continued to bring a premium but there was very little offered.

A record crop of seed potatoes is being raised in South Jersey with an average yield around 50 to 60 barrels per acre. The killing frost stopped all growth and harvesting has been pushed this past week. Growers had been holding back the crop as long as possible since the vines were green and in good condition. Careful weeding was partly responsible for the success of the vines and for the fact that most fields entered for certification passed.

The seed potato market in Salem and other counties is unsatisfactory and the bulk of the crop is going into storage pending delivery. A few sales have been reported but the low prices received for early seed in New Jersey discouraged the growers and in numerous instances they had to dig up money to buy seed. A few sales have been reported and these were largely on the same basis as prices for Maine seed. This is about \$1.25 a sack but many of the growers believe that they should get more, as they claim that a sack of high quality seed will plant more ground than a sack of Maine grown seed.

Moderate Demand for Apples

The apple market in Philadelphia and New York was steady with a moderate demand. Black Twig and Grimes were \$1.25 to \$1.50 per bushel in Philadelphia and about the same prices in New York. Apples from all sections were in good supply and a proportion coming from the western states. Supplies of apples on the British market were good and the demand and prices were about the same. York Imperials, 2 1/2 bushels, sold at \$4.87@5.11 per barrel and one highly colored stock brought \$1.85.

The lightest corned receipts of near-ripe sweet corn and cabbages to be seen in the city and the string bean and Lima bean crops are practically all marketed. A crop of 110 bushels in New Jersey is reported, but weather causing low yields. The 45 acres of celery is being grown in the city and the yield is estimated at 33,125 crates as compared with 10,000 in 1927.

Onions Are High

Onions are about one-third lighter than last season, with the crop in the East particularly short. Shipments were heavy earlier in the season, but have now begun to slacken. Prices are relatively high, two or three times those of last fall, and are at such levels as to attract a large volume of onions from foreign countries.

Most of the imported onions come from Spain, with heaviest arrivals during the fall months. In the past three years imports of Spanish stock ranged from 1,800 to 2,600 carloads of 500 bushels each. Italy, Chile and several other countries send small quantities to this country. Egypt is becoming more important and last year 1,800 carloads were imported from this country. This season the acreage in Holland is larger than usual, with a production 50 per cent above the average, totaling about 200,000,000 pounds. Probably two-thirds of the crop is available for ex-

port, though it is not known how many carloads may be shipped to the United States.

Eggs and Poultry

The market for fresh nearby eggs improved in New York during the week. The supply of really fresh eggs was light and there was a good demand. New Jersey white closely selected extras were quoted at 60¢@70¢ per dozen with a few receivers paying a premium of 1¢@2¢ for fancy graded stock. Average extras were quoted at 60¢@65¢ per dozen toward the close of the week, extra firsts at 40¢@55¢ and firsts at 33¢@42¢.

The live poultry market was firm with a good demand for fowl. Chickens were slightly higher but the demand was rather slow. Broilers were scarce and in demand. Receipts of fresh killed poultry were heavy in New York and the demand was slow. Roasting chickens were steady but most of the small chickens were of rather poor quality. Fancy large fowl were firm but the medium sizes were draggy. W. R.W.

Milkers and springers, 10 00@125 00
Common to best vealers, 12 50@15 00

Hogs

With 20,000 hogs on sale the market was 10¢@25¢ higher.
Heavy lurchers, 270 lbs., up 8 10@9 50
Mediums, 225 to 265 lbs., 9 50@9 70
Lighters, 180 to 225 lbs., 9 40@9 75
Selected, 180 to 190 lbs., 9 50@9 75
Mixed packing, 270 to 330 lbs., 8 50@9 00
Heavy packing, 330 to 350 lbs., 8 25@8 70
Roughs, 300 to 350 lbs., 7 65@8 25
Stags, subject 70 lbs. dockage 8 00@9 00
Pigs, best grades, 8 35@9 40

Sheep

Thirteen thousand sheep and lambs were offered. Market mostly a quarter higher.
Wethers, all ages, 8 6 25@9 25
Yearlings, 7 75@11 00
Western ewes, 4 00@6 00
Breeding ewes, 6 50@11 00
Fed western lambs, 12 25@13 25
Native lambs, 8 25@13 40
Feeding lambs, 12 25@13 30

Stock Movement

Cattle Hogs Sheep
Receipts for week 62,535 19,375 97,993
For previous week 62,810 19,720 81,733
Same week last year 62,221 17,754 82,424
Shipments for week 18,273 28,400 21,301
For previous week 16,842 28,700 20,612
Same week last year 22,990 33,290 11,110

MISCELLANEOUS PRODUCE

Pittsburgh

Butter.—Creamery prints, 92 score, 53½¢; tubs, 54½¢@55¢; nearby tubs, 51¢@52¢.

Poultry.—Heavy hens, 20¢@31¢; Leghorns, 21¢@24¢; springers, 27¢@30¢; roosters, 16¢@18¢; ducks, 23¢@25¢; geese, 20¢@23¢; pigeons, 40¢@50¢ per pair.

Eggs.—Fresh, select, 33¢@35¢; current receipts, 29¢@38¢.

Potatoes.—Per 150 lb. sack, Pa. & N. Y. whites, \$1.85@1.90; Mich. Russets, \$1.65@1.75.

Apples.—Bu. bskt., Hubbardston, \$1.40@1.50; Stayman, \$1.50@1.65; Delicious, \$1.65@1.75.

Mushrooms.—Pa., 3 lb. bskt., \$1@1.25.

Lancaster

Butter.—Country butter, 30¢@35¢; creamery, 51¢@60¢.

Eggs.—Fresh eggs, 64¢@70¢.

Poultry.—Chickens, \$1.25@2.50 each; springers, 65¢@1.25 each; ducks, \$1.50@3 each; squabs, 25¢@50¢ each.

Vegetables.—Beets, 8¢@10¢ per bunch; string beans, 20¢@25¢ per ¼ pk.; cabbage, 5¢@15¢ per head; cauliflower, 25¢@30¢ per head; celery, 10¢@25¢ per bunch; cucumbers, 6¢@15¢ each; lettuce, 10¢@25¢ per head; onions, 20¢@25¢ per ¼ pk.; green onions, 10¢ per bunch; potatoes, 65¢@80¢ per bu.; sweet potatoes 20¢@25¢ per ¼ pk.; peas, 50¢@60¢ per ¼ pk.; radishes, 5¢@10¢ per bunch; carrots, 5¢@10¢ per bunch.

New York

Butter.—Creamery, higher than extras, 40½¢@50¢; extras, 40¢; seconds, 43¢@44¢.

Eggs.—White eggs, current receipts, average extras, 55¢@60¢; extra firsts, 40¢@52¢; firsts, 35¢@40¢; mediums, 43¢@47¢.

Poultry.—Live, by freight, fowls, 26¢@32¢; chickens, 24¢@32¢; old roosters, 20¢@22¢; ducks, 26¢; geese 24¢; turkeys, 40¢.

THE BOSTON WOOL MARKET

The recent cool fall weather put "pep" in the wool market. The expected increase in business in manufactured goods actually developed and the surplus stocks were cleaned up quickly, resulting in a demand for fine wools strong enough to raise the price three to five cents a pound, clean basis, over quotations two weeks ago. There has been a big movement in fine wools, especially of the territory type. Medium wools are only steady. Foreign markets are also stronger, Australia being 3 to 5 cents over September sales, clean basis, and European markets showing a like trend. The Boston Commercial Bulletin quotes prices as follows:

Domestic Ohio and Pennsylvania Fleeces
Delaine, unwashed 45¢@46¢
Half-blooded 30¢@31¢
Three-eighths blood combing 35¢
Quarter-blood combing 34¢
Low quarter-blood combing 30¢
Common and hard 45¢@46¢
Fine unwashed 40¢
Half-blood clothing 44¢@45¢
One-fourth and 3/4 blood clothing 40¢@50¢

CASH GRAIN

Chicago, Nov. 5.—The following cash prices ruled here today: No. 2 hard wheat, \$1.10½@1.17½; No. 2 yellow corn, \$1½@83½; No. 2 white oats, 42¢; No. 2 rye, \$1.05½.

TO FENCE HAY STACKS

Will some farmer friend tell me how to fence hay stacks economically?

PITTSBURGH

Cattle

Monday's supply was about 60 carloads. Trade was fairly active and prices better for good fat steers, but after these were out of the way the market showed little change. The Ohio Experiment Station marketed two bunches of Hereford fed yearlings at \$16.25@16.50 and a few Angus heifers at \$12, while the West Virginia Experiment Station sold half a dozen Angus fed steers at \$15.50. Best grassers sold at \$13.50, or a little higher than last week, that figure being paid for some weighty and some handy-weight steers. Very useful steers with some weight brought \$12.50@12.75 and good fleshy butcher steers \$11.75@12.25. Fair kind of butcher steers sold at \$11@11.25, with ordinary light kind \$10@10.50 and common stuff on down. Heifers were stronger, a carload of Kentucky grassers going at \$11 and a few at more. Fat cows were steady, few above \$9.50 but more in sight for something young and fat. Canniers were a little easier for common kind, these going around \$5, with better sort up to \$6. Bulls showed little change, not many going at \$10, but only common bulls had to sell below \$9.

Choice grain-fed steers, 1,200 lbs. or over \$13 50@14 50
Good to choice grassers 13 00@13 50
Fair to good, do. 12 00@13 00
Plain heavy steers 11 25@12 00
Choice handyweight steers 12 75@13 00
Good butcher steers 1,000 to 1,100 lbs. 12 00@12 50
Fair to good, do. 11 50@12 00
Ordinary to fair, do. 10 50@11 50
Common, do. 9 50@10 50
Good light butcher steers 11 75@12 25
Fair to good light steers 11 00@11 75
Common to medium, do. 9 50@10 75
Inferior light steers 8 00@9 00
Feeders and cutters 9 00@11 00
Stockers 7 50@10 00
Good heavy bulls 9 75@10 00
Good handy butcher bulls 9 75@10 00
Choice handy bulls 9 25@9 75
Fair to good bulls 8 75@9 25
Common to fair bulls 8 00@8 75
Inferior bulls 7 00@8 00
Choice fat heifers 11 00@11 50
Good to choice heifers 10 50@11 00
Fair to good heifers 9 50@10 50
Common to fair heifers 8 50@9 50
Thin light heifers 7 50@8 50
Choice fat cows 9 25@9 50
Good to choice fat cows 8 75@9 25
Fair to good cows 8 00@8 75
Common to fair cows 7 00@8 00
Canniers and cutters 5 00@6 00
Fresh cows, calf at side 50 00@130 00

Monday's Representative Sales
No. Wt. Pr. No. Wt. Pr. No. Wt. Pr.
18 923 16.50 49 325 16.25 76 1280 15.50
20 1317 13.50 24 1113 13.50 12 1100 12.00
12 1120 12.75 14 1214 12.50 15 1162 12.30
8 1087 12.25 19 1290 12.00 11 1095 12.00
8 1151 11.75 18 1117 11.75 7 1180 11.75
12 1110 11.75 6 1141 11.50 18 1020 11.50
23 1247 11.25 5 1132 11.25 4 1072 11.25
18 1177 11.00 7 983 11.00 5 1018 10.50
7 921 10.50 11 823 10.25 7 900 10.10
5 983 10.00 5 828 10.00 6 907 10.00
5 800 9.25

Ohio Exp. Sta., Hereford, 4W, Va. Exp. Sta., Angus, 4Mixed.

Hogs

Last week's market showed strength, good hogs closing at \$10.10. Monday's re-

CHICAGO

Cattle

Chicago, Nov. 5.—Cattle receipts amounted to around 20,000 head. Market steady. Best steers here brought \$17.60.
Common to fair yearlings 8 10@11 75
Fair to good yearlings 11 75@13 50
Good to choice yearlings 13 50@15 50
Choice to prime yearlings 15 50@18 00
Common to fair steers 10 25@12 00
Fair to good corn-fed 12 00@13 75
Good to choice corn-fed 13 75@16 00
Choice to prime corn-fed 16 00@18 00
Common to good cows 6 75@8 85
Good to prime cows 8 85@10 25
Heifers, good to prime 10 25@16 00
Canniers and cutters 5 25@6 35
Inferior light bulls 7 00@7 75
Bologna bulls 7 75@9 50
Fair to choice butcher bulls 9 40@11 00
Stockers, common to fair 8 50@9 50
Stockers, fair to good 9 50@10 50
Stockers, good to choice 10 50@11 50
Fancy yearling stockers 11 50@12 50
Stockers and feeder heifers, common to choice 6 75@7 50
Feeder and feeder cows 6 75@7 50
Feeder, common to fair 9 00@10 00
Feeder, fair to good 10 00@11 25
Feeder, good to choice 11 25@12 25

Hogs

Last week's market showed strength, good hogs closing at \$10.10. Monday's re-

Turkey Market Situation

By MARILLA ADAMS

THE approach of the holiday period again brings the turkey into prominence. Dressing plant machinery has been set in order and working forces assembled ready for the official opening of the turkey marketing season. More turkeys are in the country than a year ago, although the proportion of late-hatched birds is larger than usual. Stocks of frozen turkeys carried over from the past season are close to the largest on record. Feed supplies are plentiful and relatively low-priced.

The count of the turkey population taken by the United States Department of Agriculture indicates that the crop is about four per cent larger than a year ago and approximately as large as the 1926 crop. A big increase in production was reported in the western states, due to the development of commercial hatching and sale of day-old poults. Washington increased its turkey population 35 per cent over 1927. Oregon, 30 per cent. Nevada, 25 per cent. and Idaho, 20 per cent. Most of the north-central states raised more turkeys than last year. All of the southern states, however, produced a smaller number than in 1927, the shrinkage in Texas being two per cent. The average reduction in eight southern states was ten per cent.

Storage Stocks

Stocks of frozen turkeys in storage warehouses on October 1 were 6,293,000 pounds, the largest on record for the corresponding date with one exception. They compare with 5,166,000 pounds a year ago and average stocks on October 1 of 5,039,000 pounds. The accumulation at the peak of the storing season last winter was the smallest in six years with one exception, showing that the distribution of turkeys from storage has been quite sluggish. For the first time on record, stocks from frozen turkeys increased during September whereas, on the average during the past five years, stocks have been reduced nearly a million pounds during that month.

Imports of turkeys, from Russia late last winter and early spring and from Argentina during the summer, have been comparatively heavy and low-priced. They have added to the difficulty of reducing domestic stocks.

Dealers lost money on turkeys stored last year, owing to high prices at which they went into storage and the competition they have had to meet from imports. On the present market, prices represent a loss of about ten cents a pound to dealers. Naturally, they will not be anxious to take on stocks again this year at a price which seems too high.

Favorable Season

The season was more favorable than last year for the man who wanted to increase his turkey flock, although spring was not so much on the country and cold weather set in earlier than the year before. Early in the season the crop was 33 per cent of the crop was hatched later than usual, nine per cent earlier than usual, and 58 per cent the same as usual. In Texas, however, where most of the Thanksgiving turkeys had from 45 per cent were later than usual and five per cent earlier than usual.

This points to a moderate supply of finished turkeys for the Thanksgiving trade. Fortunately, Thanksgiving comes at the end of the month this year, giving almost a week longer than last year for turkeys to get into condition for the early holiday deal.

Last year, dealers in Texas started out by paying 25 cents a pound to producers for live birds delivered at the dressing plant, but the price was advanced almost immediately to 28 to 30 cents a pound and occasionally higher. The average price of 30.8 cents a pound which farmers brought out the United States were paid for the turkeys marketed for the Thanksgiving trade was the highest for that date ever reported with the exception of 1920.

Christmas turkeys also brought a high price in 1927. An average of 32.3 cents a pound was paid to farmers for live turkeys on December 15.

At present, prices are expected to open about as high as a year ago. If there is a shortage of turkeys suitable to grade as A. No. 1, prices in November may even average higher than a year ago. This would mean extremely high prices for the consumer, but consumer buying power probably is as good as, or better than, a

concentrated into two months, most of the turkeys that aren't ready for the Thanksgiving trade will come to market in December.

Conditions do not appear favorable for maintaining prices for the Christmas trade as high as they were last year. The increase in the crop is more likely to be reflected in the numbers marketed than that at Thanksgiving time. Since the turkeys which cannot be moved into consumption at Christmas time must be placed in storage, dealers may have a cautious attitude toward the losses incurred on the turkeys stored last year.

Each year finds grading restrictions a little more stringent and the careless producer who ships immature turkeys "rays" was reported in the western states, due to the development of commercial hatching and sale of day-old poults. Washington increased its turkey population 35 per cent over 1927. Oregon, 30 per cent. Nevada, 25 per cent. and Idaho, 20 per cent. Most of the north-central states raised more turkeys than last year. All of the southern states, however, produced a smaller number than in 1927, the shrinkage in Texas being two per cent. The average reduction in eight southern states was ten per cent.

An American Editor Abroad

(Continued from page 26.)

ough investigation and probably couldn't have got at the truth because it is always obscure in such a mixture of circumstances.

I wish those who are interested in curbs markets could see the greatest of all, in Paris. For many blocks, in the district adjacent to the market houses near the Rue du Louvre, the whole of every street is one big market, where are sold at wholesale and retail everything Paris eats. There are half a dozen big market houses—one each for poultry, fish, butter and eggs, meats, fruits and flowers, but they and their business are small as compared to the street market which covers a big section of the city. About 11 p. m. the trucks, wagons and carts begin to come in with their loads. The night is devoted to getting everything in place and the early morning to selling it. By eight o'clock it is all gone and by nine the streets are washed down and open for the regular daily traffic. I got up early several mornings to study this great outdoor market. Each time I came back with a few catanques which we had for breakfast, to the great wonder of the French guests, who never eat fruit at that meal. The French breakfast consists of coffee or chocolate and rolls, with butter. Only

Prime, "U. S. No. 1," or "U. S. No. 2" or "U. S. Cull". Wider use may be made of the service this year.

Prices paid to farmers for turkeys have been advancing during recent years. In 1913, farm prices for live turkeys during the active marketing season from October 15 to January 15 averaged 14.9 cents a pound. Last year, farmers were paid an average of 29.8 cents a pound, an increase of 100 per cent. During the same period, farm prices of chickens showed a gain of less than 75 per cent.

SCOTTISH SHORTHORN SALES

An average of £107 4s. 6d. was obtained on 18 bulls and £80 1s. 3d. on 20 heifers at the annual sale of the season's calves of the famous Scottish Shorthorn herd of Duthie Webster, Collynie. Top price was £260 for Strongbow, a red-top bull calf by Belair Beaver.

At the sale of J. and C. Durno, Uppermill, Aberdeenshire—another noted herd—12 bull calves averaged £70 9s. and eight heifers averaged £61 16s. 4d. Top animal in this offering was Gordonian, a roan twin bull calf, sired by Silver Mine. He brought £350.

Purchases at these sales were made for the Argentine, Canada and Queensland.

that and nothing more. But they are all good, especially with plenty of cantaloupes. I paid five to ten francs (or 20¢ to 40¢) for the melons—the latter for a great big one which three of us were unable to dispose of at one sitting.

It is a tradition among visitors to Paris that the fishermen along the Seine never catch anything, but they do. One day I saw quite a crowd around one of those who were fishing and went down to see what was doing. He was catching fish, took half a dozen while I watched him, while others were having little luck. He was using for bait very small red-worms, anglerworms. The others were using "gentles" or big and very active meat maggots. The fish ranged in size from three to six inches but all were kept regardless of size. The rod used by these metropolitan anglers is a lengthy affair, made to reach well out over the water. It is shortened by taking out the long joint at the butt, and this is quickly done whenever the rod is brought in to renew bait or adjust tackle. The size of the rod, which looks big enough to handle a shark, and the size of the fish landed on it make a rather ludicrous combination to an American angler, accustomed to lighter tackle and real fish.

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Back to Adam

After all the apple is the King of Fruits with a history tracing back to the garden of Eden. The first seed coming to this country brought seeds from the old world. At first apples were planted chiefly for the purpose of making cider and for use. Later as population shifted cities commercial orchards came into existence. Eating quality became important and an effort was made to improve varieties.

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Marketing and Distribution

At first apples were loaded in or loose in the wagon bed to the nearest market. Cartloads were loaded and handled similarly to bulk produce. Later the barrel became the most common package in the eastern section of the country. It was rigid and he stacked in cars or in storage out seriously injuring the fruit. Many eastern apples are still in barrels but the basket and bin have been used more extensively each year. They are more convenient, more attractive and do not bruise the fruit much. The retailer prefers the package as it gives him a quicker turnover and he has more chances in the original package. New lenses along the lines of production marketing are rising each year when we look back we can see enormous progress has been made in the apple industry in the past years will be in the line of marketing and distribution.

An announcement of interest to the fruit industry is the result of the Bean Spray Pump Company, San Jose, California and Lanning, and the Anderson Range Company of San Jose, under the name John Bean Mfg. Co. The new

new machine is a hand sprayer, which is a thing no grower could hope to keep from filling up with dope; it was a mixture of the best, a challenge to both peace and rest.

But my new kitchen! My, oh, my! It is a sight to please the eye. It is the fairest room, I think, from garret top to cellar sink; with water sparkling at the tap and no sharp heat to spoil one's nap; built-in devices everywhere, nice grace in every kitchen chair!

How did we live in these old days when life had neither joy nor peace? How did we ever then survive, how come it that we're now alive? Well, anyway we toughed it through, we did the things we had to do, and this new kitchen, nicely done, through contrast with the older one is twice as handy, sleek and nice. It has more pep, more joy, more spice for us.

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The MARKET PLACE

By W. R. WHITACRE

TONIGHT is Halloween and children are having a fine time. Our oldest boy, Billy, has his Halloween suit and he with his mates visited all the neighbors, came home bulging with cookies and nuts. The boys and I made "pump faces" and they look fine over the place. We all went out on the street to see the masqueraders. Benn, the smallest one, trudged along blowing a horn for all he was worth. Boys are rarely quiet and they all the noise they wanted to with a single "Hush". Every one we passed seemed happy and that in itself is enough for Halloween.

This is not only Halloween but it is also the opening of Apple Week. It is the harvest season, the time apples are most plentiful. Apple committees in various cities are contributing fruit to the children's hospitals, schools and orphanages. Apples are appearing in newspaper dining cars and many other places.

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GET MORE EGGS Make more Money

Send for this FREE Book

Read our new book. Learn why PEARL CRIT makes pullets and hens lay better, why their eggs are heavier, smoother shells on the outside. Your birds spend more time eating now. They don't get as much dandruff and forage. They need more grit to keep healthy, to avoid picking, to produce eggs. It's the natural thing to do. It will make you more money. It will save you money. These facts are clearly proved in our book.

Feed PEARL CRIT to your chickens and other fowls—turkeys, geese, ducks, etc. Get supply as soon as possible. Mail coupon.

PEARL CRIT Corporation
215 Wayne St., Piquette, O.
Send me your free book, "The Poultry Farmer's Pay Envelope" and give me names of dealers who handle PEARL CRIT.

Name.....
Address.....
City..... State.....

THE CRIT COMPANY, Inc.
Piquette, O.

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New Jersey Notes

(Continued from page 9.)

Awards made to the various teams were as follows: Grand champion, Freehold, first; Glassboro, second; Bridgeton, third. Swine—Freehold, first; Felington, second; Madison, third. Dairy cattle (all breeds)—Freehold, first; Madison, second; Salem, third. Holstein—Moorestown, first; Freehold, second; Sussex, third. Jersey—Freehold, first; Bridgeton, second; New Brunswick, third. Guernsey—Madison, first; Patterson, second; Salem, third. Ayrshire—Patterson, first; Lambertville, second; Salem, third. Potato—Freehold, first; Vineland, second; Glassboro, third. Poultry—Freehold, first; Clinton, second; Hackettstown, third. Apple—Moorestown, first; Freehold, second; New Brunswick, third. Corn—Lambertville, first; Felington, second; Woodstown, third.

An interesting feature of the judging was a mock auction sale of swine. The age, breeding and history of ten animals were given and the boys reported the sales value. William Cuddy of New Brunswick judged within five dollars of the value of the ten hogs and Philip Alamp of Glassboro came within ten dollars of their value. In estimating the live and dressed weights of a fat barrow Carl Rohrer of Madison made a score of 98.1 per cent. B. Stow, H. Kessler and G. Hoch of Moorestown, and Albert Goeken of Freehold made perfect scores in identifying fifty apples of fifteen varieties grown in New Jersey.

These boys were of the same caliber, as those who returned from the National Dairy Exposition at Memphis, Tennessee, with a first place in the vocational boys' milk judging contest and second honors in judging cattle. The boys who helped to put New Jersey on the map at Monmouth were James Pettit, Jr., of Salem, Edward Lipman of New Brunswick, Clancy Lorenzo of Newton and Arthur Hawkins of Clinton.

At a meeting on Wednesday it was voted that the Young Farmers' Association of New Jersey, which was organized about seven years ago, become identified with a national vocational organization to be known as the Future Farmers of America. Leslie Applegate of Freehold was chosen by the delegates to represent New Jersey at the first meeting of the Future Farmers of America which is to be held at Kansas City on November 20 during the American Royal Livestock Show. The boys elected the following officers for the coming year: Elvin Schaffer of Bridgeton, president; Leslie Applegate of Freehold, vice-president; Smith of Madison, secretary-treasurer and Clispin, reporter.

W. VA. CORN AND GRAIN SHOW

The exhibiting produce in the annual Corn and Grain Show to be held at Monticello, W. Va., July 19, is good advertising and such is a sound business proposition, is the belief of show officials.

Winners in the show receive statewide recognition for the superior crops they grow which should not do and in building markets to their products.

In a large sense, the display of corn and grain from the West Virginia farmers is viewed by the show officials as a means of showing to the public the quality of the crops which are grown in that state, thus aiding in creating out-of-state markets for West Virginia products.

STUDENTS SEE MARKETS

The annual marketing trip of the senior class in agricultural economics of the Pennsylvania State College was held during the week ending October 20th. The class had an opportunity to see how fresh fruits and vegetables were handled on the Philadelphia market. They visited the large produce terminals, the Dock Street market and went through one of the most modern cold storage warehouses in the country.

The Port Richmond grain elevators, milk, ice cream, tobacco, baking and canning plants were inspected in Philadelphia and Camden. The Grain Trading Floor of the Commercial Exchange, the Interstate Milk Producers' Association and the offices of the United States Bureau of Agricultural Economics were also on the itinerary.

85 COLTS SHOWN

The draft horse business is far from dead, judging by the display of purchased Belgian colts recently on the streets of Wabash in the second annual colt club show for Wabash county, Ind. A group of breeders of outstanding Belgian horses, working for the interests of the horse business, have sponsored a colt club for several years in that county and through their cooperation have had the public look to their county as the leader in the state for Belgians. Eighty-five horses were in the show, something decidedly unusual in the state during the last decade or so.

BUICK 4-DOOR SEDAN

Puzzle fans attention! J. C. Long, Charles Vogtmann, Mrs. J. C. Field, Vada J. Smith, Mrs. John Gillies, Jacob Brucher, each won a new Buick 4-door sedan in our last auto puzzle. Over 800 prizes awarded in one year. Over \$11,000.00 in prizes paid by us in October, 1928. In next few months will award between 500 and 400 prizes through our puzzles. Here's the new one for you.

FIND THE "DIFFERENT" AUTO

The cars in the oval all look exactly alike at first glance. They are not all alike. One is different from all the others. There is a real difference. Something is purposely left off all the other cars but this one. The difference may be in the fenders, bumper, nameplate, radiator or top. The one that is "different" is the real Buick Sedan I am giving away in addition to three other cars in my great friendship advertising campaign. You may be the one who will find it.

AND WIN BUICK SEDAN OR \$1800.00 CASH

4 sedans and 28 other prizes totaling over \$5,000.00. 25 prizes and duplicate prizes paid in case of tie. If you can find the "different" auto you may be the one to get this great prize.

Certificate for \$480.00 to apply on grand prize sent immediately as below if you find the "different" car.

Immediate quick action—no delay—we send certificate for \$480.00 to add to the first prize of \$1800.00. We send directions for getting Buick Sedan. NO MORE PUZZLES TO SOLVE. No more of words to make or write or any other puzzle. Number of all, everyone exercised if actively interested. No cost or obligation. Nothing to pay now, later, or ever. Just send the number of the "different" auto in a letter or on a post card. That's all, send no money.

R. M. Francis, Dept. 32,
600 N. Dearborn St.,
Chicago, Ill.

Silo Prices Reduced till January 1st Only

NOW—right now—is the time to buy your Silo for next year. It's our dull season, so prices are at rock-bottom. Don't let this chance to save go by without at least knowing all the facts. Better

Send for New Silo Catalog

We'll send you full details and then let you decide for yourself whether to buy. No obligation on your part so isn't it worth a postage stamp to find out all about this real chance to save.

CRAINE, Inc.
11 Grant St., Norwich, N. Y.

LET CRAINE LIFT YOUR DAIRY TO A HIGHER LEVEL OF PROFIT

THE CRAINE LINE

Craime Triple Wall Silos
Craime Wood Stave Silos
Craime Tapestry Tile Silos
Craime Concrete Silos

RIFF'S NEW MODEL RAM

Pumps Water Where and When You Want It

Operates on 20 inch fall. Pumps into pressure or overhead tank. Latest invention of Mr. Rife. Considerable improvement since 1884. Rife's New Model is popular for domestic water supply, is lighter, but just as efficient, reliable and even more so than his heavy duty pump. Rife's New Model Ram has no equal. Your money's worth or your money back. Free catalog and information. Agents everywhere.

Sold Exclusively by
H. T. OLSEN
15 PARK ROW
NEW YORK, N. Y.

WISCONSIN DAIRY LAND

In upper Wisconsin, the best dairy and general crop state in the Union, where the cow is queen. This Sun Line Highway is selling out fast land in the richly growing dairy sections at low prices. Liberal contracts. Offers a great big Ask for booklet 62 and about 1000 cowboys' rates.

1701 5th Ry. Bldg.
MINNEAPOLIS, MINN.

When writing advertisements please mention Pennsylvania Farmer

TABLE 1

Variable	Mean	Standard Deviation	Minimum	Maximum
Age	60.78	9.05	40	80
Gender	1.00	0.00	1	1
Marital Status	1.00	0.00	1	1
Education	12.50	1.50	9	16
Income	15.00	10.00	5	35
Health	1.00	0.00	1	1
Depression	1.00	0.00	1	1
Loneliness	1.00	0.00	1	1
Social Support	1.00	0.00	1	1
Life Satisfaction	1.00	0.00	1	1

2 out of 3 cows fail,



One pays
. . . . One breaks
even One is
fed at a loss

Alarming! Yes—but true. Dairy authorities are agreed that on a national average of milk cows only *one cow in three* pays its owner a profit. What a burden must be borne by the profit-makers in the herd! What a chance for stepping up the figures on the monthly milk check! Even a small reduction in the number of cows that merely break even—or worse—may easily *double* the net dairy profit. In the average herd a ten per cent gain in the milk crop will actually double the profit . . . A goal worth working for.



FRED R. HANER, Valley Falls, N. Y. writes:—I have used Kow-Kare for some time and always feed to my whole herd as soon as I chance to have feeding in the Fall. I find it pays to do so, as I never have a drop in milk at some of my neighbors do when making a change to barn feeding in the Fall of the year.

Regular Kow-Kare Conditioning Absorbs the strain of heavy winter feeding . . . makes forcing safer

WINTER . . . dry feeding . . . little exercise or fresh air . . . a complete change and re-burdening of the milk producing load—No wonder your cows break down, lag, get off feed, cost you actual money to keep through to Spring!

To maintain milk volume throughout the trying Fall, Winter, and Spring months, give Nature a chance. The same productive bodily vigor that successfully converted the succulent green summer foods into milk profits can fail utterly during

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Kow-Kare is a scientific concentrated compound of elements best suited to tone up, invigorate and regulate the natural productive functions of milk cows. Iron, the great body builder and blood purifier, combined with potent medicinal herbs and

How to home-mix your own complete mineral

With Kow-Kare you can easily mix your own complete mineral at a surprisingly low cost—a mixture of recognized conditioning value. Simply mix 30 lbs. salt, 30 lbs. fine-ground limestone, 30 lbs. steamed bone meal and four cans (large) Kow-Kare. For well under \$6 per hundred you will have an unbeatable mineral. Use 80 lbs. of this mixture to a ton of grain.

roots make up the Kow-Kare formula. Many veterinarians use it regularly in their practice. Dairywomen who once test it on their backward, lagging milkers seldom get along without its proven benefits during the barn feeding period.

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November 17, 1928

Established 1877



Pittsburgh

Harrisburg

Philadelphia

Farm Facts and Fancies

By ALVA AGEE

I AM personally interested in some people who live in sections having only dirt roads. They cannot use automobiles and trucks to any advantage during several months of the year. There is no expectation that they can ever have hard-surfaced roads—their cost is prohibitive. Their pleasure, their profits and the value of their land are kept below their deserts.



"King road drag again?" my reader asks. Yes, you guessed right. I didn't seem to stir much interest last spring, though I said quite a bit, but the summer was promising passable roads then, and now that the winter and spring are lying just ahead it may be worth while to try it all over again. It isn't that the need is not recognized, but we have let the hard-surfaced people put across too effectively the teaching that money is wasted when it is not expended on so-called permanent types of highways.

There is no more waste in keeping a dirt road passable than in spending as much per mile, or twice as much per mile, in paying interest and repair during the existence of a paved road. The road drag can keep the dirt road in pretty fair condition for a less expenditure per mile than the interest and repair on a paved road—considerably less.

The King Drag

This road drag has not been a failure where there has been a strong community interest in its use, and an intelligent use—our friend Lighty and many others can tell you that—but its attempted use has been usually on the wrong basis. The people in these communities have the right to the interest of the authorities in the country roads in the same degree as that given paved roads.

Some crowning of the road-bed and draining of the sides will permit a King drag to keep ruts filled after rains so that water will not stand and soften the road. Capable men should be hired to run drags over sections of the highway when needed. We do not depend on public spirit to pay interest and to repair a paved road; then why in the case of a dirt road? It is a business proposition. Why should not a dirt road be kept passable, and farm life along it attractive, when the cost is decidedly less than the annual cost of a paved road? The square thing is to give the country road its share of public funds. Its maintenance is in the interest, direct or indirect, of all the public.

Local Taxes

The individual farmer can help secure passable dirt roads. Another thing in the way of self-help is to be insistent that the public get away from some false ideas about so-called local taxes which are a great burden. We have had a lot of discussion the past year about the tax burden, and naturally there is a demand that local taxes be cut down, such taxes being the greater part of the load that is carried.

We do not easily drop down in our level of living, either as individuals or communities, except under absolute compulsion. We are accustomed to the present provision for schools, roads, the care of the unfortunate, the salaries of officials, etc., and I do not expect to see reduction in the amount of money used for public purposes within townships and counties. Criticism is useful in holding us back from improvidence, but it is the present burden

What we need is to urge the fact insistently that the education of a child, the maintenance of an unfortunate person, the care of any highway, is a duty the state owes to itself. Its welfare demands these things, and the day is by when their support should be considered a local matter. The cost should be spread over the whole state, and the immense wealth of cities and towns should take its share—its full, even share. This is a practicable means of making the tax burden a fair one to the whole state, and of relieving those who are carrying a far too great share of it. If the interest that has been shown in Mussel Shoals the last few years, which means little or nothing to the farmer, had been devoted to a just spreading of so-called local taxes, we might have made a lot of headway.

The Middleman

Occasionally we take our dinner in a cafeteria. We have a few friends who never do so, not caring to stand in a row, carrying a platter, and taking one's turn in being served, and then finding a table. My pride doesn't chance to take that particular form. We went the other day, and when we reached the meats the fried chicken made a great appeal to me. The girl gave me a wing and part of a thigh of a small fowl, and the charge for that item in the dinner was sixty-five cents, as I found when I reached the checker at the end of the line. Now, it would be easy to say a bit about such a charge, but what are the facts? There are many places to eat in the city, and this one is crowded, and the management makes a scale of prices that corresponds so nicely with demand that the large room and balcony have capacity taxed.

Probably most people are not foolish enough to take fried chicken very often, but a reputation for high quality foods enables the management to make stiff prices for nearly everything. I don't exactly see that I have a right to charge this middleman with extortion. If his prices were much less his cafeteria would be overcrowded. I was half-provoked by the cost of that item in my dinner, but I don't see that I had any ground for criticism. The matter of the middleman's profits is puzzling to me. There is far too wide a spread between what the producer gets and what the consumer pays, but part of the blame I have been attaching to the middleman I am ready to switch to the consumer who wants guaranty of quality and many special services. I don't find it easy to throw the matter through.

Give Him a Chance

This is written before a choice of President has been made by the people. Each candidate is plucked to give for a solution to the problem of financial returns to the farmer. The one who proves to be the choice of the majority has a right to a trial of his plan. It will not be fair to delay matters by the determined effort of the minority. Whichever one wins, backed by a majority of his countrymen, should have right of way. This is why we vote.



Friendly Talks

By
Edgar L.
Vincent

"G" with him twain."

This has a good ring, but it is not so easy to live up to. Talk about keeping right on after you have traveled the first mile with the man who is a little hard-bitted in his dealings with you until you have rounded out the second mile. Half a mile is more than most of us like to do, and that often under protest.

And yet I know of farmers who have made it their lifelong habit to go away beyond the two-mile limit in their transactions with their neighbors. I have in mind just now a man who for many years went clear round his farm in the spring of the year and fixed all the fences, whether they were "his part" or not. In fact, he never stopped to think about "where my line leaves off and his line begins." He forgets all that and just keeps on till he has all the fences up shipshape.

And this is one of the queer things about it: I never heard of one of that man's neighbors who said "Thank you" for being so kind and unselfish in his fence-making. I am not sure but the line came with some who owned lands adjoining his place when they took it for granted that he would build the fences clear round his farm. But that made no difference to him. He went straight on year after year, whistling as he worked and seeming to be having a real good time. And I believe he did.

The truth is that the second mile we travel freely, generously and with nobody holding a big stick over our heads is the best, the sunniest and the cheeriest mile we ever do travel. When we lay aside all thoughts of our rights and, as the good old Apostle Paul says, "each think of the things of others," we will be most ready to step over the line into the country where there are no line fences to build, but where all are brothers in the truest sense of the word.

Experience with Clover

As a reader of your valuable paper for a number of years I wish to state it has been very helpful to me in many things. I noticed in your last week's issue an article on liming. The experiment station, I believe, recommended liming corn ground which was to be seeded the next spring in oats.

I am a pioneer farmer but will say in my experience clover seeded with oats has been very satisfactory. This spring I seeded eight acres with oats and have a very fine stand of clover. Get the same results from 12 acres last year. My hay made me two tons per acre this year. I used 1,500 pounds of superphosphate to the acre and besides top-dressed my oats with manure.

I want to use a kiln of lime next spring and would like to know if I would be more sure of a grass catch by using it on the corn ground and plowing it down for oats the next spring or putting it on my oats ground and sowing it to clover next spring. It seems to me lime on the surface is better than in the bottom of the furrow. Would like to hear from some one who has tried out both ways and which gave the best results.

I have been informed that lime and manure should not come together on top of the ground, but do not think it pays to drill cloverseed. I drilled about six acres and it started to rain so I had to finish by hand. Where I drilled the seed my sweet clover was very good, but I got hardly a stalk where I sowed by hand. This was on wheat ground last spring a year ago. I imagine the moon changed because I got the last of it sowed.

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NESHAMINY GARDENS

By R. P. KESTER

I HAVE been expecting for some time to get a dig in the ribs for something I wrote last year, and here it is from I. K. of New Jersey:

"If my memory serves me right I think this paper ventured the guess nearly a year ago that sugar corn was almost sure to be overplanted (in 1928) because of the high prices of last year. The facts of this year prove the guess to be wrong. I have toured the Philadelphia wholesale market twice a week for five years as a buyer and I can truthfully say that in no other season

can I recall sugar corn selling at such good prices—\$1 per five-eighths basket and \$2.25 per bag of 75 ears. There was also a scarcity of most vegetables. Had our overwhelming army of farmers been on the job, this situation could not have been. Now I recall the foregoing only for comment, if you have any, and do not mean to criticize you in any way whatever."

Guessing on the future in any line of agricultural activity is a dangerous pastime. In fact, about the only modern prophet who can safely keep on prophesying and get away with it is the weatherman. But, like most writers, I have learned to use words which will leave a hole through which I can crawl. It will be noticed by the above that I said "overplanted," not over-produced, in reference to sweet corn. The figures (acreage estimates) show that the number of acres planted to sugar corn was considerably increased and the only thing that prevented an over production was the unseasonable weather. Comparatively few of the acres planted produced a satisfactory or even normal crop. In spite of the high prices to the past season, I will venture another guess that not half the farmers in eastern territory came out square on their sweet corn crop.

But life is full of contradictions. Here is a letter from a Columbia county, Pa., reader living where the rainfall must have been more satisfactory, although we are told that the rain shall fall alike upon the just and the unjust:

"I read your notes with interest the first thing when I pick up the paper. In a recent number you asked for the experience of others in raising Golden Bantam sweet corn. I almost always grow three plantings, and this year all three were successful. We had large folders and corn of fine quality, but we had plenty of smut. I never saw it so bad, although few ears were affected. Will dip-dusting the seed retard it?"

"My last planting came off the first Tuesday in October. I furnished the corn for a corn roast at that time and thirty-five people were wild over it and I sold my entire crop that evening. You will understand that some of my success was in knowing when to gather the corn to be in the best stage for eating."

"We had the finest crop of Colossal tomatoes we ever raised, some weighing two pounds, and they sold well, bringing repeat orders. Onions, parsnips and lettuce were excellent crops. I planted four acres of Australian Hullo-less popcorn, but the field was polluted with nut grass and I plowed it down. I counted on the crop from this field to buy a new car in the spring, but now it is good-by car."

"This spring I planted 100 each of

I overdo it if I mulch them heavily with manure this fall, covering all the ground?"

I call that a good letter because it is personal and homey. There is a hint of Coolidge economy near the close where he says good-by to a new car until he has the money in hand to buy it. But he is not in fashion today. The almost universal rule now is, "pay out of future earnings."

But to answer the questions, I have never tried dip-dusting corn seed to prevent smut. Seed treatment will control smut in wheat and oats, but I fail to find any authority saying that corn smut can be controlled in that way. The makers of one kind of dip-dust claim that seed treatment increases the yield of sugar corn. It might be well to experiment with it. Corn smut spores live over in the ground, in manure and in old cornstalks. Picking out and destroying infected stalks seems to be about as much as can be done, together with rotation of crops.

If the soil where the berry plants were set is in good condition and has plenty of humus in it, I would prefer dressing them with a good complete fertilizer in the spring rather than run the risk of polluting the ground with weed seeds from manure. Weeds in berry rows are a great nuisance and are hard to combat. Unless the manure was thoroughly rotted when applied, it might also interfere with cultivation next summer. If manure is to be applied I would prefer to put it on next summer, say about the first half of August. A heavy application then would help to keep down the fall growth of weeds, and would be rotted before cultivating time the next year.

We gave our celery the last hillings up the first of November. We loosened a lot of fine dry soil by using the garden tractor equipped with disks and drew the dirt up as high as we could with extended garden hoes. Albert went to the shop and fastened a piece of thin board 18 inches long on his hoe. Then I went with mine and fashioned an extension out of an old automobile license plate. They were what you would call "howling successes," and we did the work in one-third the time it would take with hoes alone. There has been a great deal of discussion about how to dispose of old safety razor blades, but little done about the disposition of old auto tags. Here is a suggestion.

Potatoes for Steers

Will you please give me through your columns the feeding value of raw Irish potatoes for steers, if such information can be acquired?—C. W. Bowen.

VERY little information is available on the feeding value of raw potatoes for steers. This feed has been used primarily for feeding swine, since only once in many years is it cheap enough to use in this way.

Potatoes contain about 78 per cent water, 2.2 per cent protein, 18.4 per cent carbohydrates and 1 per cent ash. This makes them a bulky carbonaceous feed, a roughage rather than a concentrate. The dry matter in potatoes would have about the same feeding value for steers as would the dry matter in corn silage. Raw potatoes fed at the rate of 25 pounds per 1,000 pounds live weight daily to steers should replace about this same amount of silage in the ration. If fed in larger amounts their value would be less. Unripe potatoes and especially the sprouts of stored potatoes contain a poisonous compound and in feeding all sprouts

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KEEP THE CULLS

THE potato situation continues unsatisfactory and will be so as long as all kinds are shipped to market. At a recent meeting at Chicago shippers adopted this resolution: "That growers and shippers confine their shipments of potatoes to those grading U. S. No. 1 as determined by federal inspection, and that all potatoes be free from dirt and other elements that detract from appearance and affect market conditions." Federal inspection is not available to all growers, but every producer can help himself and others by sending to market only first-class potatoes.

CHANGING BUSINESS

THE survey of the retail meat business, to be made in Pittsburgh and we presume in other cities, does not promise results of great value. This for the reason that all retail business is now in a state of transition, so much so that the findings of today may not apply to the conditions of even the near future. Agriculture has changed much and is ever changing, but we are thankful to say that it is a stable business as compared with some others, retailing among them.

BOND ISSUES LOSE

THE people of Pennsylvania voted down all the five bond issues submitted to them at last week's election. The State College bond issue fared the best of the lot, but the hope of this assured fund for the development of the institution must be abandoned. The principal argument against this bond issue was that the Commonwealth's funds, present and prospective, are sufficient without any increase in its debt. Those who presented this argument are in position to prove it, and they should proceed to do so with liberal appropriations.

THE GREATEST SHOW

THE International Livestock Exposition, held at Chicago December 1-8, announces a few improvements this year. A notable one is the judging of car-lots of fat cattle on Saturday, the opening day, instead of on Tuesday as heretofore, giving the public additional time to study the greatest display of commercial cattle in the world. The International, the exposition of the great meat and draft horse industries of this continent, has no equal anywhere on earth. The chief fault to find with it is that too few can witness it, and not enough of those can really study its lessons. The problem now is not to make the International bigger but to make it visible and more useful to the people.

MODERATE EXPECTATIONS

WHAT may we expect of the next Congress and the next President in the way of legislation for farm relief? Judging by the public expressions of Mr. Hoover, nothing radical. Some adjustment of tariffs on farm products, some provision for improved waterways, some sort of a federal farm board with advisory or educational functions rather than authority of any kind—these three are about all that has been proposed. Let us await the defini-

nite propositions rather than spend time and space in speculation as to what they will be. About all that really needs saying now is that we should not expect vast benefits from any attempt at farm relief by legislation.

HOLSTEIN PROGRESS

EVER since the Holstein-Friesian Association of America, many years ago, discarded its inaccurate records of production and adopted a reliable system of making records we have expected it to lead in the correction of abuses. Now the Association proposes to use the great influence it has, through its financial contributions to fairs and shows, to correct a couple of common show practices. One of them is the blanketing of cattle so that the public is denied an opportunity to see them when not in the ring. Next year the Association will demand that all cattle showing for its prize money be without blankets during the day unless the weather makes covering necessary. Another practice the Association is trying to abolish is the unfair filling or smoothing of cattle by various means known to skilled showmen and veterinarians. Other organizations should follow this example and insist on prompt disqualification of any animal that has been the subject of artificial improvement by inflation or any other operation. In some breeds this policy might result in considerable reduction in number of exhibits, but it is right and should be enforced.

EIGHT YEARS ON THE AIR

ON THE evening of November 6 we sat around a big table with the pioneers of radio broadcasting and heard the wonderful story of its development. Only eight years ago, on the night of a national election, the first broadcasting of returns was done by the Westinghouse Electric and Manufacturing Company over its new radio station KDKA. That station was the one and only voice on the air when President Harding was elected. Only a few persons heard that voice, nobody knows how few. Today thousands of voices and instruments are heard by many millions, nobody knows how many. For ten million radio sets are in use in this country alone. Great systems of broadcasting have been built up whereby it is possible for one man to speak directly to fifty million Americans and to many millions in all parts of the earth. Radio may make reality the old dream of a world language—and with it world-wide understanding, that forerunner of world peace. And the end is not yet. It is probable that before another national election rolls around the people may not only hear the candidates but see them, for television is on the way and seeing will be as easy some day as hearing is now.

With one accord the guests at that dinner of pioneers paid tribute to the father of radio broadcasting, Mr. H. P. Davis, vice-president of the Westinghouse Co., who sat at the head of the table. And we wondered how he felt when reminded that in eight little years his vision has been realized in a vast industry, and something of more value to humanity than any mere industry.

TWO PROPHETS

AT the recent National Dairy Exposition two speakers discussed the future production and consumption of milk. One of them was Nils A. Olsen, chief of the Bureau of Agricultural Economics of the Department of Agriculture. He declared that "the demand for dairy products is expanding more rapidly than production," also that the natural addition to population requires the product of 320,000 more cows every year, average cows; that per capita consumption of dairy products is increasing, and finally that "under present conditions in the United States dairy production may continue to expand at a moderate rate without overreaching the tariff wall and depressing prices to the foreign market levels."

The other speaker was John D. Miller, past President of the National Milk Producers' Federation. He says that "dairy farmers are now confronted with the problem of over production of milk.... With milk production increasing during the period when the number of dairy cows has been decreasing, and with a probable increase in the number of dairy cows now in sight, the conclusion follows that in the not distant future there will be a surplus of milk and milk products in the United States." He fears an "annual and national surplus" on top of the regional and seasonal surpluses of recent years. And he advocates increase of consumption in both country and city as the best means of preventing a surplus from "breaking down the entire price structure."

No matter which of these gentlemen will finally rank the higher as a prophet, the policy of increasing consumption is absolutely safe and sound.

THE COST OF CROPS

A READER submits figures showing the cost of a three-crop rotation of corn, wheat and clover, asking whether his way of estimating costs is the right way. We don't want to discourage cost estimates, for they are useful, but we doubt whether there is any right way to arrive at correct figures for the cost of any one item in general or diversified farming. This man's figures indicate that wheat costs the farmer \$1.73 to \$2.50 per bushel for yields of 24 down to 16 bushels per acre. If he accepts his own cost estimates as conclusive he must quit raising wheat until the price is around \$2 per bushel. But will he quit? His estimates show that corn costs him \$1 to \$1.27 per bushel for yields ranging from 55 down to 43 bushels per acre. If his figures are correct his theoretical course is to quit raising corn until the price catches up with the cost. But will he quit? And if he does cut out wheat and corn to what will he turn? It is highly probable that he will go right on with his three-year rotation and take a chance of cashing some of its production at a profit by converting it into beef, pork, mutton, wool, dairy products and poultry products. And finally he will balance his total farm account to determine whether he should continue or should sell out and let somebody else do the farming.

Soil and International Trade

The Land as Our Source of Food Supply Looms Large in World Affairs

By J. G. LIPMAN

AGRICULTURAL commodities play an important role in international trade balances. Cotton, hemp and jute among the fibers, cottonseed, linseed, soy-bean, coconut and other vegetable oils among the fats, sugar cane and sugar beets as sources of sugar, rubber for the automobile and other industries, coffee, tea and spices, hides, hair and wool, meat animals, meats and packing-house by-products, milk powders, cheese and butter, eggs and egg products, cottonseed meal, linseed oilmeal, soy-bean cake, and a host of other commodities occupy a large place in the movement of agricultural products and their derivatives across international boundaries.

International credits, rates of exchange, banking policies and methods, transportation facilities and policies are all affected by this movement. The efficiency of the cotton farmer in the Southwest will affect the wages of the textile workers in England or Belgium. The yields per acre of cottonseed, corn or wheat will affect the fortunes of the dairymen or poultrymen in Denmark. These examples may suffice to show that the upward or downward trends of soil productivity in one country will affect the economic status of farmers and manufacturers in other countries.

As the methods of transportation, refrigeration and processing are improved, the employment of crops and crop products gradually involves a widening area. Competition in farm products is becoming less and less local. But the ability to compete in domestic or international markets is determined in part by soil fertility, its decline and its betterment. Our railroads and merchant marine have thus more than an academic interest in the quality of soils in different regions and in the conditions that influence soil productivity.

The movement of crop products involves the movement of plant food. Prior to the World War German economists estimated that the concentrated feeds imported into that country—largely from North and South America—represented an annual gain of something like three hundred thousand tons of nitrogen to German agriculture. Larger quantities of feed meant more livestock and the return of larger quantities of plant food to the land. Aside from nitrogen, large quantities of phosphorus, potassium and of other plant food ingredients are also moved in vast quantities when crop products are exported.

Competition of Soils

THE cereals and animal products when exported alienate relatively large amounts of plant food from the soils of the exporting country. On the other hand, products like fats, starches and cellulose contain relatively small amounts of plant food. Hence, countries exporting butter would lose relatively little plant food whereas countries exporting cheese in equivalent amounts might lose substantial quantities of plant food. Similarly, the export of cottonseed meal is more important from the standpoint of soil fertility than the export of cotton fiber.

Virgin soils of high natural fertility possess advantages when it comes to competition in the world's markets. When such virgin soils are cheap, when the areas in the individual farm are large, and when labor-saving devices can be employed to advantage their owners are able to undersell competitors less favorably situated. But, as the virgin fertility is drawn on for a longer or shorter period, production costs must increase because it becomes relatively more costly to mine the plant food from the land. Soil chemists and economists will do well to consider the plant food factor as determining the movement and costs of agricultural commodities in domestic and world markets.

The movement of agricultural commodities involves, therefore, competition not only of farmers but of soils as well. A portion of the soil capital is gradually alienated under intensive methods of production. Farming skill, the type of tools and machinery employed and the climate play a part in determining the rate at which plant food may be taken up by growing crops and transported to other localities.

When the amount of plant food that becomes available from season to season is no longer adequate for large crops, there must be a change in the types or systems of farming, or the abandoning of the land for areas still capable of producing rela-

time the problem of replacement arises. It may become profitable to restore the larger portion of the plant food taken up by crops, and it may be found desirable to aim toward higher and higher levels of production as a means of decreasing the unit cost of agricultural products.

Cheap food and shelter mean cheaper labor. For this reason, soil fertility, in so far as it influences the cost of human and animal food, also influences costs and profits in industrial enterprises. By way of example, we may note the tendency of textile manufacturers in New England to transfer their operations to the South, where lower housing and food costs, like reduced transportation costs, react favorably on the cost of manufactured articles. Certain industrial and economic trends may thus be corre-



Peasant Woman Harvesting Wheat in Bavaria; She Receives About 60 Cents a Day for Her Labor

lated with soil productivity in different areas. But correlation becomes more definite when we consider cooperation among farmers, the better organization of exports and the standardization of the quality of the products marketed.

In the same way, intelligent buying of agricultural products will help industrial undertakings to maintain their advantages. Thus, the supply of leather for shoe factories, of fats for soap making, of fibers for textile mills or of wood pulp for paper making, may be traced back to soil quality and to human skill in organizing production, transportation and distribution. As these, and other commodities, enter into the channels of international trade, it is now and then discovered that it may be more economical to exchange manufactured articles for food and agricultural raw materials than it would be to produce them in the country into which they are imported.

England may be taken as an example of countries in which industry and trade have so overshadowed agriculture as to have discouraged domestic production of food. Before the outbreak of the World War, England was producing about one-half of its total food requirements. English farming declined because those entrusted with the government of the country preferred to depend on the cheaper lands of North and South America, of eastern Europe and of Australia for the supplying of food, fat and fibers.

Trend toward Specialization

BUT, just as soils may be said to be in a dynamic condition, so types and systems of farming are constantly changing. Staple crops are relatively unprofitable. There is, therefore, a marked tendency to replace beef animals by dairy animals, and sheep by swine. Crops of so-called low commercial value—like wheat, oats, barley, cotton, etc.—are replaced by crops of high commercial value, e.g. fruits, vegetables, nursery products, etc. There is a marked tendency the world over toward a greater degree of specialization in crop production.

The staple crops of low commercial value can survive best on cheap land, or on land which is both cheap and productive. Where the land is higher priced, only the largest yields per acre will allow the farmer to secure a profit. Thus, we see that wheat

land, England, Belgium, Denmark and other countries of western Europe. But we find that it requires yields of 30 to 40 bushels per acre to make wheat production worth while. At such high levels of production, the land must furnish during the growing season available plant food in abundance. Obviously, then, in the process of adjustment from one type or system of farming to another the soil fertility factor looms large.

Economic policies of all sorts come into play and bounties or tariffs are frequently invoked to permit the domestic producer to survive. We see the shifts and adjustments going on particularly rapidly in the United States. California and the Pacific Northwest have within a few years attained prominence in the eastern markets as a source of fruits and fresh vegetables. The Southwest has made vegetable forcing unprofitable in the North. Areas at one time devoted to the production of meat animals, of cereals and cotton have begun to specialize in the production of potatoes, early vegetables, tree fruits, poultry and other commodities. In all of these changes, we must reckon not only with the quantities of different crops that may be produced on any soil type, but also on the quality of the products as they play a part in human diets, in growth and in resistance to disease.

Soils as a Common Interest

IT is evident to students of soils that the land resources of the world are being utilized in keeping with a broader outlook on economic policies. The food eaten in any urban community is no longer of local origin. It tends to become less and less local as to origin with the progress of time. The world has learned to pool its food resources. By the same token, it is learning to pool its soil resources. There are countries of food surpluses. They have large areas of land which is still cheap. Their farming is of the extensive rather than of the intensive type. There is enough elbow room to permit the individual farmer to cultivate many acres and to depend on animal and mechanical power to help exploit the plant food resources of his land.

On the other hand, there are other countries of food deficiencies, whose population must look across international boundaries—often to distant regions—for their supply of food. They have a direct interest in land values and soil qualities of the regions whence their food comes. There are countries that have a surplus of some agricultural commodities, but are depending on outside territory for the supply of other commodities.

Our own country well illustrates this condition. For a series of years we have been exporting about 60 per cent of our cotton crop. On the other hand, we are importing most of our sugar and all of our rubber, to say nothing of other commodities which we purchase in many places. Like other nations, we have an interest in the quantity and quality of soils lying beyond our boundaries.

As time goes on, mankind will recognize more and more clearly this common interest in the soils of different regions. The physiologist, sociologist and economist will undertake the study of the quality of human material which comes to our cities from different soil regions. They will attempt to correlate political tendencies and doctrines, conservatism and radicalism, ignorance and enlightenment with land and soil problems. They will think of soils in terms of population, population increase and migration from rural to urban districts. They will attempt to translate soil quality into terms of human quality and the efficiency of human material in laying the foundation of progress in all fields of human endeavor.

We have made gratifying progress in the study of the world's soil resources. However, a mere beginning has been made. Enormous areas of land are still to be investigated, classified and mapped. Our knowledge of the soil resources of South America, Asia, Africa and Australia is limited. The large task is still before us of exploring the soil possibilities of the tropics.

With a better knowledge of the soil resources of different regions, we shall be ready to inventory crop resources of the world. We shall define more accurately the limiting factors of production in different areas and shall be ready to interpret our knowledge of soils and crops in terms of potentialities.

Eastern Farm Comments

By MILES HORST

THOGA COUNTY is the fifteenth county in Pennsylvania to qualify as a modified accredited area. During the past month the 39,048 head of cattle in the county were subjected to the tuberculin test. Only 180 head, or less than one-half of one per cent, reacted.

THE experience which Maryland is having with hog cholera this fall emphasizes the care that all owners of hogs should use in keeping away from them scraps of pork that may have originally come from cholera-infected hogs. The report of Dr. I. K. Atherton, in charge of hog cholera work for Maryland, states that of the 262 cases existing in the state during September only 12 could be traced to a contamination coming from other herds. Two hundred and fifty of the cases were reported as primary cases, that is, the infections did not come from neighboring premises but were attributed to the fact that the owners on these premises fed swill and table scraps to their hogs. It must be remembered that pork from hogs carrying cholera infection must be cooked thoroughly in order to make the pork safe to feed to healthy hogs. The best way to prevent such infection is to avoid feeding any scraps from the table to hogs.

THE Wayne County Poultry Association held its annual banquet at Seelyville, Wayne county, October 30. Although this organization is but a year old it has the enthusiastic support of all the leading poultrymen in the county as was evidenced by the fact that 120 attended this annual gathering. While the banquet was an occasion for levity the talks given after the meal took up a serious discussion of the poultry problems of this county. Those on the program included John Vandervort, head of the State College poultry extension service; H. D. Monroe, former head of the same service; Wm. Allen of New Jersey, and Mr. Henderson, the new poultry specialist for northeastern Pennsylvania. Mr. Henry Hoeker was elected president of the Association for the coming year; Livingston Blauvelt, secretary-treasurer; Herman Haase and Bert Kennedy, directors for the next three-year term.

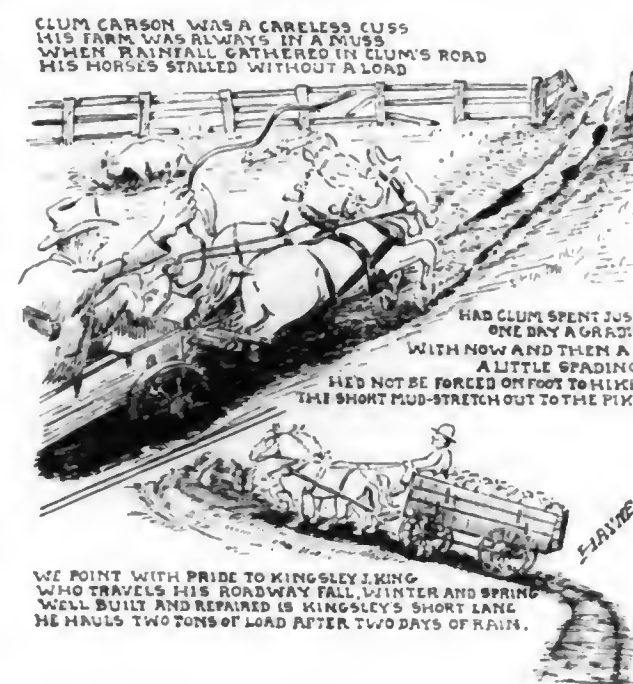
A SUBSCRIBER from Allegheny county, Pa., writes as follows: "I pasture no cattle on my farm and hence have no fences, but my neighbor does pasture his cattle and accordingly must have fences. His attorney at the present time is trying to compel me to build my half of the line fence between us, a fence which does me absolutely no good except to help my neighbor keep his cattle on his own farm. Can he compel me by law to build this fence and what law covers it?"

It is difficult to give a clear-cut answer to this question. The laws of this state provide for fences and legalize construction. The courts have ruled that it is not necessary to construct fences except where adjoining owners decide that such fence is required. They have further decided that it is necessary for an owner of livestock to fence the same in rather than the public to fence them out. This is based largely on the Act covering fencing passed by the Legislature of 1889. It did, however, not entirely supplant an Act of 1842, which provides that when owners of adjacent lands become arbitrary over the construction or erection of fences due in part to misunderstanding concerning necessity, location, sufficiency, etc., to the inconvenience or damage of one or both, the same shall be submitted to a Board of Township Auditors who shall determine what would be a sufficient fence under the circumstances, with the power to order said fence constructed. But any man who allows his cattle to wander on another man's farm is held responsible for the damage. He has the power by the Act of 1842 to force his neighbor to help construct the fence but he must take this action before allowing his cattle to go at large.



The Bull Special

Above is seen the Better Sires special train, which was run through northern Pennsylvania this fall over the New York Central Lines to promote the use of pure-bred sires in dairy herds. A hundred bulls were consigned to the train. Good crowds of interested farmers and dairymen greeted the train at every stop.



in the West Branch valley of the Susquehanna river near Williamsport is the superior yielder on the upland areas. The high price of grain since the war has stimulated an interest in the production of husked corn. The tests have shown that the Wisconsin 25 variety of corn will mature in average years in upland as well as river flat areas, and will yield quite satisfactorily.

A WHITE LEGHORN hen owned by Theodore Wirtanen of Erie county, Pa., has set a new record in egg production for the United States. She produced 347 eggs within a year, a record exceeded only by a Canadian hen which laid 348 eggs in a year and by an Australian hen which was credited with 353 eggs in a year. Mr. Wirtanen's hen started on her egg-laying record as a six-month-old pullet. Her weight at the close of the record was four pounds and fourteen ounces, six ounces more than the standard of the breed.

FARM leaders in the congressional district of Pennsylvania comprising Cumberland, Dauphin and Lebanon counties want their congressman to know how they feel toward national issues pertaining to farmers' interests. To crystallize farm sentiment in this district they have called a meeting at Carlisle on the evening of November 23, where representatives of the three counties will consider various recommendations offered and from them draw up a program to present to their congressman before he leaves for Washington, December 3rd. Undoubtedly the congressman will be as anxious to get the views of his constituents as they are to give them to him.

THE fifth annual Horticultural Week will be observed at the Pennsylvania State College, November 26 to 28. Three separate programs will be offered this year, designed to take care of the needs of those interested in fruit growing, vegetable gardening and ornamental horticulture. The week's program is a unique one in that it includes no set speeches, but devotes the full time to discussions, in which growers and specialists alike take part. A

timely subject listed is the construction and operation of stationary spray plants. Another covers the equipment and organization of fruit packing houses.

THE farmers of Indiana county, Pa., under the guidance of their county agent, J. W. Warner, are going to Pittsburgh, their nearest large

market, in groups, there to observe at first hand what a large city market wants and how it wants it. Two weeks ago the potato growers of this county took a day off for this purpose. Last week the fruit growers did the same. Other groups will follow. These men are taking the first practical step in finding a solution to their marketing problem if they can be said to have one.

New Jersey Notes

PLANS discussed at a conference in late October of the New Jersey agricultural interests promise a more extensive Agricultural Week at Trenton this season, January 15 to 18, when the 14th annual mid-winter farm products show and exhibit will be held. Representatives of 15 farm organizations, State Grange, College of Agriculture, Experiment Station and State Department of Agriculture attended the conference and mapped out a week's program which will include a larger farm products and equipment exhibit, as well as more expansive arranging of the farm meetings which make up the official State Agricultural Convention. During the week, two members of the State Board of Agriculture are to be elected and 15 of the state farmers' associations will hold their annual or adjourned meetings. Among the large exhibits will be a baby chick show with at least 25 of the commercial baby chick hatcheries in New Jersey competing for awards. The growth of the poultry show also requires a separate hall this winter.

THE seed potato market in central and southern New Jersey is in an unfortunate condition from the standpoint of the grower. Large crops of seed stocks in Maine and Prince Edward Island have brought large supplies to New Jersey markets at prices of \$2.50 to \$3 a sack delivered for Maine certified seed and \$3.50 for Prince Edward Island. The seed potato growers in Cumberland and Salem counties, who were only starting to dig in late October and early November, cannot compete at these prices and Jersey grown seed has been going out, due to the competition, at less than cost of production. Potato growers not interested in the sale of seed stock are profiting largely by this demoralized market.

THE New Jersey College of Agriculture has published advice to farmers in New Jersey against signing contracts for electric wiring until the electric power line has actually been extended to their farms. It appears from numerous cases this season that unreliable wiring firms have induced farmers to sign contracts and put in wiring, whereas there is no indication even in many cases that local power companies are extending their service in the immediate future. County agents and the Farm Bureau are making an extensive drive to warn farmers of the hoax.

NEW JERSEY poultry interests are contributing to the \$5,000 fund of the National Poultry Council, to be used as a separate appropriation for urging a higher tariff on eggs and egg products coming into this country. The Council has asked New Jersey to furnish \$300 as its part of the program. Various associations within the state are subscribing in amounts varying from \$5 to \$25. The fight will be carried to the floor of Congress if necessary, to bring about an increase in the present duty on eggs in order to meet the increasing competition in the eastern markets.



Prepared for Winter

Many farmers still pride themselves on a large woodpile when winter comes on. The owner of this one on a New Jersey farm need not worry when the price of coal soars. Some one suggested that he paint it, but he posed his two small boys on instead.—H.



The Spirit of Thanksgiving

THE first Thanksgiving was celebrated by a little band of people who had struggled through many hardships, adverse weather and sickness. They paused on this now historic day to give thanks for their many blessings.

Since that time the nation has overcome primitive difficulties, yet life is more strenuous and more complicated. However, each year brings each of us its measure of joy as well as disappointments.

The nation depends upon the farmer to provide the food for its Thanksgiving table. It also relies upon the railroad to bring this food to market. Should either be unable to perform its duty, everyone would suffer. Thus the farmer and the railroad contribute most toward making the day one in which all people join in giving thanks.

Let us approach Thanksgiving with truly grateful hearts, and a realization of the fact that food production and transportation are the two fundamental industries of the country.

The New York Central Lines desire to join you in the spirit of Thanksgiving.

New York Central Lines

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New York Central Station, Rochester, N. Y. 68 East Gay St., Columbus, Ohio
La Salle St. Station, Chicago, Ill. Michigan Central Station, Detroit, Mich.
466 Lexington Ave., New York, N. Y. 902 Majestic Bldg., Indianapolis, Ind.

Win \$3,500.00

Here's news for puzzle fans! C. W. Francis, A. F. Holt, Miss Leola Markus won from \$1,800.00 to \$3,500.00 each in our last puzzles. Here's the new one. Here are twelve pictures of Charlie Chaplin, the world famous United Artists star. No, they're not all alike, even though they look alike. Eleven of them are exactly alike, but one and only one is different from all the others. That's the real Charlie Chaplin. The difference may be in the tie, shirt or hat.

Find the "Different" Picture

200 prizes totaling over \$7,900.00. \$3,500.00 to winner of first prize and duplicate prizes in case of tie. If you can find the "different" picture you may be the one to get this great prize.

Certificate for \$1,000.00 to apply on great prize sent immediately as below if you find the "different" picture.

If you find the real Charlie Chaplin we will send as soon as correct answer is received certificate for \$1,000.00 to add to the first prize of \$3,500.00. If you win, and directions for getting largest prize. Over \$50,000.00 in prizes already given to advertise our products locally. No cost or obligation. Nothing to buy now, later or ever. Everyone rewarded if answer is correct.

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ADVERTISING IS THE MODERN INTELLIGENCER.
It keeps you informed, advises you of new things, suggests new uses for articles you already own, and prepares you today for wise and useful purchases tomorrow.

School for Plowmen

By R. U. BLASINGAME

I HAD the pleasure of attending a school which was held by one of the large manufacturers of farm machinery at its branch house in Harrisburg a few weeks ago. The students in this school were key salesmen, one each from neighboring branches in Pennsylvania, West Virginia and Maryland. It was explained to me that the salesmen attending these schools were expected to go back to their branches and impart their knowledge to the other salesmen. I was also informed that this school was one of a series which has been



held this year in different parts of the country. Three expert instructors were present to do the teaching.

The first day started with a lecture covering the center of the line of draft, and the location of the line of draft, and the relation of the hitch to the line of draft. The discussion started with the walking plows. Charts were used to help the students visualize the line of draft and drive home the importance of correct hitch. There is no question about the fact that an understanding of the principles outlined is a distinct advantage in determining how to hitch to a plow. It was clearly shown that hitching too high on a walking plow causes it to run too deep and that hitching too low causes the plow to run out; that to make a plow take more land the hitch is adjusted toward the plowed ground, or toward the land to make the plow take less land.

Short and Long Hitches

The relation, in a walking plow, of side sick, bottom sick and wing bearing to satisfactory operation was also brought out. Other features clearly demonstrated were that shortening the hitch has the effect of lowering the hitch on the clevis, and, vice versa, that lengthening the hitch has the effect of raising the hitch on the clevis. Surely any one who possesses the facts brought out in this discussion of walking plows will be better equipped to start a plow, or to determine what is wrong if the plow fails to perform satisfactorily.

After covering walking plows, riding plows were taken up and instruction was given on how to determine the location of the hitch for two and three horse teams. The functions of the front and rear furrow wheels in counteracting side draft were clearly demonstrated. In addition to instruction in how to operate a plow the men were told how to check a plow to determine whether it had been assembled correctly or, if in the field, whether it had sustained distortions of beams or other parts as the result of accident or ill handling.

Then followed the application of the instruction given on walking and wheel

plows to the tractor plow. The correct adjustment of rolling coulters and jointers was gone into. It was shown that in hard ground a rolling coulters that is set too far forward may sometimes ride the plows out of the ground and that dull coulters will also have this effect.

During the progress of the lecture the men were reminded that they would later be expected successfully to set up and operate the different plows discussed. The effect of this was to keep them on their toes and very attentive. On going to the field the plows were found in the original packages just as they had come from the factory, and the men were required to assemble them and adjust them for work. They were permitted to consult the instruction papers which accompanied the different implements. From here on direct instruction ceased.

After one crew had assembled a plow the other members of the class were asked to criticize the work and suggest any changes which they thought would improve the performance of the implement. Whenever they made a suggestion they were asked to explain why they wished to make it. The ensuing discussions helped greatly to impress the men with the importance of correct adjustment. If wrong conclusions were reached the men were of course set right.

Dependable Service

As a climax to the instruction the men were shown a plow which purposely had been thrown completely out of adjustment and which had been assembled wrong and were asked to determine what was wrong with the plow and make the necessary corrections. The alterations made were such as are met with in the field as the result of lack of knowledge on the part of users, and were, therefore, practical. It was a remarkable testimonial to the thoroughness with which the class had been instructed that every alteration was discovered and corrected before the plow was again put into the ground.

There is one thing which I should like to call attention to with regard to plow repairs and that is this: There are a good many manufactured plow repair parts which are marked, "Will fit McCormick-Deering," "Will fit John Deere," "Will fit Oliver," etc. The manufacturers of these parts are often unknown to the purchasers and, if the parts do not give satisfaction, the purchasers have no recourse. As a rule such parts cost just about as much as the regular parts but they are hardly ever of the same high quality.

I may have gone to some length in discussing this plow school, but it has a significance which I think should not be overlooked. It is that this thorough instruction of a sales organization in the operation and servicing of their implements is of great importance to the agricultural industries. It means that everything which can be done is being done to insure the purchasers of agricultural implements dependable service.



Plowmen at Work in Turning Heavy, Smooth Clods.

Farmers UNITE

Profit in the Great Nation-Wide Fight

The entire nation is engaged in a tremendous fight against the devastating onslaught of the Five Newspapers, farm magazines—even the national governments are co-operating in this fight.

The job of Farm Fire Protection has caused the nation a loss of hundreds of millions of dollars. The farmer is protected by well equipped fire departments but, until now, little thought has been given to the wealth of crops and livestock—the thousands of human lives that are daily exposed to the deadly stroke of fire on the farm. Until now, no one has offered protection to the farmer.

Now, with the Fyr-Fyter Company, you can join the fight and receive good pay for doing it.

\$300 a MONTH

To add in the fight, we must appoint a man to represent us in your locality at once. I want to appoint a farmer or man who can talk to farmers, and you can authorize you to inspect all farms, farm buildings, stores, filling stations, garages and warehouses in your territory. My training, which will be given FREE to the man I appoint, will make you a Farm Fire Prevention Expert.

Hours a Week This fascinating, easy, profitable work with your regular daily farm duties. I pay you for six hours a week of your time. You make your inspections, after nothing, or at three evenings a week, or on Sunday mornings. The money you get from me is added to your regular income. I send paychecks every Saturday.

PERMANENT, STEADY INCOME This is an opportunity to build up a permanent home. H. Scher, Nebraska, makes \$300 a month; J. Baker, Oregon, 65 years old, makes \$25 to \$30 a day; he works for Fyr-Fyter; Louis Sage, Illinois, doubled his income as Fyr-Fyter representative.

Needed At Once Send coupon today for full information about the tremendous life pay offer I am making for farm representatives.

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Send me full details of \$300 a month program for farm representatives.

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So Easy To Work Outdoors In The Old Reliable Reg. U. S. Pat. Off.

Brown's Beach Jacket

It fits snugly, yet binds nowhere. Affords absolute protection against wind and cold. Is made of double hard-wearing, wool-fleece lining, knitted by a special process, which makes a cloth that cannot travel and will stand the hardest wear. Three styles—coat with or without collar, and vest.

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BROWN'S BEACH JACKET COMPANY
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Disk Harrows for Every Purpose

For farm garden and orchard. Sizes for 1 to 8 horses and for every kind of tractor. Also special disk plows for new land, orchards etc. Write for illustrated FREE BOOK "The Soil and Its Tillage". The Soil and Its Tillage.

ALABAMA
Write the Chamber of Commerce, Selma, Ala. for free information about THE BLACK PRIDE PRIDE SOILS of Dallas County. This is the greatest natural asset of livestock and poultry of America. READY MARKET FOR FARM PRODUCTS, good roads, good schools, and a climate that makes most of



This Tractor Plows a Clean Straight Furrow 12 to 14 Inches Wide and Up to Seven Inches Deep.

A Wilderness of Sweet Clover

IT IS one thing to grow a big crop of sweet clover to turn down for potatoes or other crops and it is another real job to plow this clover under when the ground is hard in the fall. It has become common practice to grow sweet clover particularly for potatoes. There has been considerable complaint about the difficulty encountered in plowing the sweet clover under. Mr. Milo Campbell in Centre county, Pennsylvania, last year purchased an 18 inch single bottom corn borer plow to turn under his field of sweet clover. He tried every method available but succeeded only with a large base plow.

The illustration on the opposite page shows a disk plow used by a potato grower this fall for plowing down his sweet clover for next year's potato crop. The disk plow, this farmer states, is an admirable tool for doing the job. One man can plow from six to seven acres a day with this outfit.

This particular farmer purchased a two-row potato digger this fall which he pulled with this tractor. This two-row digger was arranged to be operated by the power take-off from the tractor. The outfit did an admirable job. One of the beauties about the power-take-off digger is that if the machine becomes clogged one can stop the tractor and run the digger and clear it of vines, trash or other foreign material.

Septic Tanks

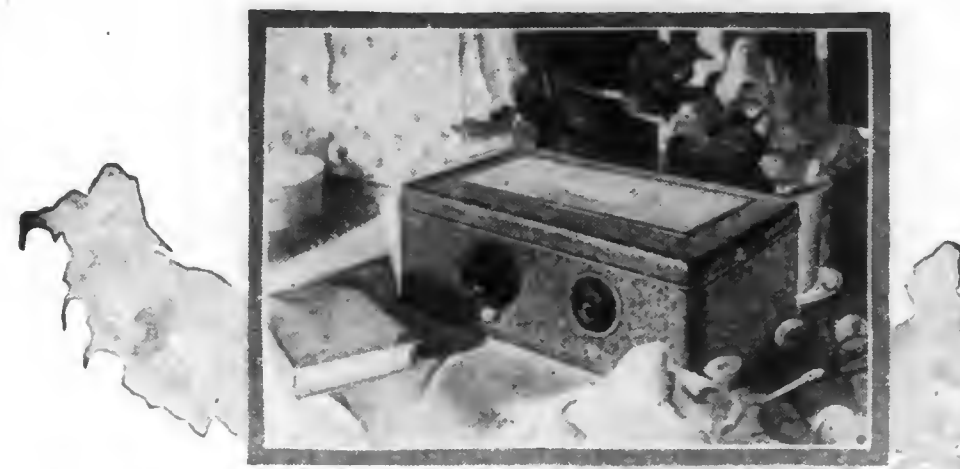
I WOULD like some information on making a cess pool or something of that nature as near as you can advise. SAMUEL BREHM.

THE septic tank has become very popular in Pennsylvania the last few years. As near as we can determine, there has been possibly 1,200 or 1,500 built recently and are giving excellent satisfaction.

The septic tank is a concrete watertight box built in the ground into which the sewage empties. The sewage decomposes and the common method of disposing of the dark colored effluent from the septic tank is to allow it to run into an open jointed drain tile system placed about 12 inches or 15 inches under the surface of the ground. This is known as a sub-surface irrigation system. This system is made of joints of four-inch drain tile.

As you do not mention the number of people nor the approximate amount of sewage to be handled, I am unable to recommend the size of septic tanks needed for your purpose. I am, therefore, asking one of the cement companies to send you their recent booklet which shows every detail in the construction of the septic tank. From this you can select the size of tank required. Maybe your county agent can put you

ATWATER KENT RADIO



MODEL 40, ELECTRIC, \$77

For 110-120 volt, 50-60 cycle alternating current. Requires set 34, 35, tubes and one rectifying tube, \$77 (without tubes). Also Model 42 with automatic voltage regulator, \$86, and Model 44, an extra-powerful "distance" set, \$106 (without tubes).

What a comfort to know your radio is faithful...

MARY, turn on the radio and see what the weather man says. Then let's see if there isn't a good male quartette somewhere, or a brass band—"

What a satisfaction it is, when you have a chance to relax, or when you want the market quotations in a hurry, to know your radio will do its duty.

Good, reliable Atwater Kent Radio! What a host of friends its dependability has made! "You can

set is powered wholly from the house lighting circuit. You snap a switch to turn the current on and off, just as you do with an electric light. Always ready to operate. Current costs only a fraction of a cent an hour.

—or from batteries

The 1929 battery set also has clear tone, selectivity, great range and plenty of volume, plus beauty and space-saving compactness that distinguish all Atwater Kent Radio.

—at a money-saving price

You cannot buy the all-round satisfaction that Atwater Kent Radio gives, for less than the figures quoted here. You can pay a great deal more without getting more. The low price of Atwater Kent Radio is made possible by unequalled facilities for making the finest modern radio economically.

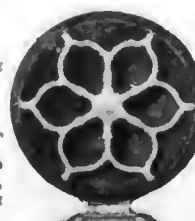
always count on an Atwater Kent—wherever radio is known, that's what they say.

This quality of steadfastness is built in, and doubly assured by 222 factory tests or inspections. Hence the common remark, "If Atwater Kent makes it, it's right."

From the house current
The 1929 Atwater Kent all-electric

On the air—every Sunday night—Atwater Kent Radio Hour—listen in! Prices slightly higher next of the Rockies.

"Radio's Truest Voice" Atwater Kent Radio Speakers: Model L, E-2, E-3, same quality, different in size, each \$20.



ATWATER KENT MANUFACTURING COMPANY
4700 Wissachickon Avenue A Atwater Kent Press Philadelphia Pa.

Garden and Truck Crops

By GILBERT S. WATTS

MANY growers have experienced increasing competition from produce that has been shipped great distances by truck into their markets. In this respect vast networks of good roads sometimes have worked in an unfavorable way for growers adjacent to good local markets. Produce not only is shipped in over night in perfectly fresh condition but local buyers are going a hundred, two hundred or more miles in their speedy trucks to secure the advantage of shopping around and buying in the larger markets. But there may be at times another side to the picture.

In August the local cabbage market was around a dollar and a quarter to a dollar and a half a barrel. Then carlot supplies in Pittsburgh began to diminish day by day and prices at that point began to rise until they touched three dollars a barrel. A telephone call to a leading wholesaler confirmed the market reports issued by the Bureau of Markets. Asked for an opinion on the probable market the next morning the wholesaler expressed great optimism. I phoned a long distance drayage company and asked them how many barrels of cabbage they could haul to Pittsburgh in a load and what the cost would be. I was given a price of \$7.50 a ton for the hundred mile haul. This figured about 40 cents a barrel. I told them to have their truck at the farm at 5 p. m. that day.

We cut 160 barrels of cabbage, 158 of which were loaded in the big truck and the attached trailer. The load was in Pittsburgh by 4 a. m. and sold at prices which netted 60 cents a barrel above local prices after deducting truck hire and commission. I was about \$90 ahead. I had got rid of some cabbage which was altogether ready to go and I had eased the pressure on my local market.

Tons of Pie Timber

ON a farm in New England this fall I saw a storage house containing about 70 tons of Blue Hubbard squashes. This variety is extremely popular on the Providence market. The uniformity of shape, color, size and roughness of this lot of squashes was remarkable. If you enjoy genuinely high quality squashes for winter use, baked or in pies, this variety is worthy a trial. It is productive, keeps well, the flesh is extremely thick and above all it has quality. A point worthy of note is that this grower plants in hills spaced four and one-half by nine feet apart. He first thins to two plants per hill and later reduces the stand to but one plant per hill.

One of the seasons was devoted to a discussion of green manuring. The speaker brought out the very interesting fact that the turning under of crops for purposes of soil improvement is by no means a modern development. He quoted a translation from the writings of a prominent Chinese scholar who lived about 500 years before the birth of Christ: "For manuring the field in you is best and so you rank second. They are broadcasted in the fifth or sixth month and are plowed under in the seventh or eighth month. Their fertilizing value is as good as silkworm excrement or well-rotted stable manure." Incidentally both of the crops mentioned are varieties of beans, indicating that the value of legumes for soil improvement was recognized in ancient times.

In a discussion of getting along with much diminished amounts of stable manure, or none at all, several growers stressed the importance of turning all sorts of crop refuse back into the soil; sweet corn fodder, tomato vines and so forth. One grower related how he ran his grape trimmings through a silage cutter and put them on the heaviest land he had. He reported marked improvement of physical com-

Finally a very pleasant day with New England market gardeners was closed with the acceptance of an irresistible supper invitation to the home of a grower.

About Cucumbers

I HAVE just finished reading Farmers' Bulletin No. 1563, Cucumber Growing. This is a new publication which may be secured without cost upon application to the Office of Information, U. S. Department of Agriculture, Washington, D. C. There is a fund of instructive matter in this bulletin which it will be well worth the while of any one who grows cucumbers for market to digest. Every phase of cucumber growing and the control of insects and diseases is discussed in detail.

I believe there are few gardeners—and I make no exception of myself—

who inform themselves as fully as they should on the crops which they grow when one considers the great amount of literature which is available from state and national Departments of Agriculture. Winter is the time to secure such publications and to file them, after reading, where they may be found with certainty when needed as reference during the growing season. I would fear to face the new problems that arise yearly without the little reference library of vegetable crop bulletins which I have collected over a term of years.

Stored Roots

I WONDER how the stored root crops and celery are keeping. At this season of the year temperatures may drop very low or rise rather high. Vigilance may be the price of preventing undue losses. One must not be caught napping. Too much protection and too little are almost equally bad. Plentiful use of good common sense has about as much influence as anything else on the degree of success attained in storing vegetables.

Going and Coming

This narrow strip of corrugated paper around the apple tree is a double acting trap for injurious insects. Female climbing the trunk to deposit their eggs in the tree stop and lay them under the band, where they may be destroyed easily. So do other insects going down the trunk to deposit their eggs in the ground. The photograph was taken in the orchard of the Repp Brothers, Gloucester county, New Jersey.

Mulch for Strawberry Plants

WITH winter's freezing weather coming on, the mulching of the strawberry bed is in order. All things considered, the mulching of the strawberry bed is one of the most important factors in producing a profitable crop. Many growers have lost out by neglecting to provide a winter mulch for their plants. Around three tons of straw to the acre is needed for an adequate mulch.

The advantages for mulching are obvious. To begin with the plants receive beneficial winter protection and a good stand of plants is saved. The mulch prevents heaving in late winter and early spring and so prevents much damage. Roots can be seriously damaged by severe heaving. When grown under mulch weeds are kept down between the rows while at the same time a fairly uniform and adequate supply of moisture is kept available for the plants. This results in growthy berries and of high yields. Then last but not least, the mulch keeps the berries from getting dirty. Appetizing berries can be harvested. Then a higher color and more uniform color. Many kinds of mulching material can be used and cheap local supply is usually the determining factor in choosing the kind of mulching material to use. Good clean wheat straw is one of the best materials and usually is readily available. Wheat straw does not pack down tight enough to smother the plants. A covering of three or four inches is usually sufficient. If the rows are found to be covered a little too heavy in the early spring, it is an easy matter to part the mulch over the rows. This should be done before any whitening of the leaves occurs.

"Newlaid Fancy"

The New England states have joined together in an effort to market the farm crops to better advantage. The New England farm marketing league, adopted by the departments of agriculture of five New England states, made its appearance in Connecticut boxes of "Connecticut Newlaid Fancy Eggs."

More than 70,000 of these labels have been purchased by Connecticut poultrymen and are now appearing on the market. A regulation paper carton also been adopted which will standardize the appearance of the "Newlaid Fancy" eggs.

Spray for Peach Leaf Curl

PEACH trees must be sprayed for curl while buds are very dormant, which is another way of saying that there is a better chance to spray dormant peach buds in late fall than in early spring. Fall spraying of peach trees for leaf curl is an excellent practice and I find it the prevailing custom among many of our best peach growers. It is done in far too few instances, however, and as a result many orchards do not get sprayed early enough in the spring to cover dormant buds and in such cases leaf curl is bound to show up.

Just as soon as the leaves fall and weather permits the spraying can proceed. There are many choices of materials but each material needs very thorough application to cover all the buds thoroughly. Lime sulphur liquid is often used and a strength of 1 to 15 will control curl, though it is often used stronger at one to seven to control both curl and any scale insects that may be present. The dry lime sulphur is used at 15 pounds to make 50 gallons of spray.

Bordeaux Mixture

Bordeaux mixture is also effective against leaf curl. A 2-6-50 Bordeaux can be used for curl and Bordeaux combines nicely with the oil emulsion sprays if a spray for scale or red mite is needed in addition. When combining Bordeaux with oil emulsion it is not advisable to use a Bordeaux stronger than two pounds of bluestone to fifty gallons of spray, as the stronger Bor-

Changed the Variety of an Orchard



Top worked apple trees in the orchard of the Repp Brothers of Gloucester county, New Jersey. The successful grafting of this large block of trees illustrates how orchardists correct mistakes or follow the whims of the market.

Coal Ashes for Orchards

I have been told by a man who puts coal ashes around the roots of the apple trees and other fruit trees in his orchard that he has noted a marked improvement in quality and production of the fruit as a result. Will you please give me your judgment as to the soundness of this procedure and whether it could be followed with safety and profit in other or all cases? K. J. MacLennan.

COAL ashes contain practically no plant food. If incorporated with the soil, they improve its water drainage and physical condition. Placed around the crown of the trees, they prevent the growth of grass and weeds at that point and hence may help to prevent damage by mice. It is difficult to see how coal ashes could benefit the trees in any other way. I doubt whether the observed improved condition of these trees is due to the use of coal ashes. S. W. F.

How to Keep Cider Sweet

Will you please send me a recipe telling how to keep cider sweet? MRS. R. M. C.

One method, and the least satisfactory, is to add benzoate of soda to the fresh juice in an amount not to exceed one-tenth of one per cent. The use of other chemical preservatives is forbidden by law. This "doped" cider, however, is far inferior in flavor to untreated cider, hence it is difficult to find a ready sale for it.

A much better way is to pasteurize the cider. The following summary of the process is from Farmers' Bulletin 1284, "Farm Manufacture of Unfermented Apple Juice." This bulletin may be obtained free on application to the Secretary of Agriculture, Washington, D. C.

- (1) Select sound, well-matured, properly ripened fruit.
- (2) If different varieties are available at the same time, blend them in proper quantity to give a well-balanced cider of good flavor.
- (3) Wash and sort the fruit, trimming and discarding all specked or partially decayed apples.
- (4) Grind and press, subsequently repressing the pomace.
- (5) Place the juice in deep containers in a cool room over night, to allow the settling out of the pomace.
- (6) Siphon off the juice from the sediment.
- (7) Place the juice in suitable sterilized containers, seal with sterilized corks, and submerge in cold water in the pasteurizer. Bring the temperature up to 175 degrees F. and keep it at that point for the prescribed time.
- (8) (Second method) pasteurize at 175 degrees F. by passing the juice through a continuous pasteurizer, placing it in sterilized containers and sealing immediately.
- (9) Store the juice in a cool, dark room until settling is completed (two weeks to four months). For home use juice may be kept without further treatment until used, if preferred.
- (10) A siphon off from the storage containers.
- (11) Blend, if juices pressed at different periods are being used.
- (12) Clarify further by passing through a pulp filter, milk separator, centrifuge, or flannel filter bag.

Henceforth, the results from the pasteurization of cider have not been uniform, but careful workers secure a high percentage of success. The chief difficulty is to retain the flavor of the fresh cider; pasteurized cider is apt to be flat. Recent improvements in method seem to indicate that the time is far distant when this difficulty will have been overcome. Then unfermented apple juice may take the place now occupied by "pop." S. W. F.

Dr. Eugene C. Auercher of the University of Maryland has been appointed Principal Agriculturist in the United States Department of Agriculture to take charge of the newly created office of Horticultural Crops and Diseases, it was announced last also been adopted which will standardize the appearance of the "Newlaid Fancy" eggs.

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 6. Mail letters to Contest Editor, Campaign Headquarters, 705 Third National Building, Dayton, Ohio.
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Keystone Poultrymen Meet

By H. C. KNANDEL

INTERESTING and successful poultry meetings under the auspices of the Pennsylvania State Baby Chick Association and the Pennsylvania State Poultry Association were held at the Pennsylvania State College, October 25 and 26, 1928. Poultrymen from 38 counties were present. Matters of prime importance to the hatcherymen were discussed on Thursday, October 25th. This included brooding of chicks in batteries, sale of started chicks, poultry thieves and proper methods of advertising poultry products.

Mr. Paul Guldin of Yellow House gave a very interesting talk relative to his method of rearing 3,500 chicks on the floor of his incubator cellar. This move was necessitated because of the fact that suitable brooding quarters were not available. While Mr. Guldin did not recommend this method as an ideal one, yet his results proved conclusively that chickens can be raised successfully for a period of eight weeks without direct rays of the sun. In a cellar approximately 40x80 feet, these 3,500 chicks were reared to eight weeks of age with a mortality of about ten per cent. By this time brooder houses had been constructed and the chicks were transferred to them.

Hatchable Eggs

Professor D. C. Kennard, in charge of poultry investigation work, Wooster, Ohio, gave a report on feeding and management necessary for the production of hatchable eggs. He emphasized the importance of some legume hay in the form of alfalfa, clover or soy bean. The use of cod-liver oil, milk and minerals was also advised. Of course, in addition to these materials, such feeds as corn meal, wheat bran, wheat middlings and ground oats should be used.

One of the most interesting talks was presented by Professor W. R. Graham, head of the Poultry Department, Ontario Agricultural College, Guelph, Ontario, Canada. The subject of his talk was "What Stands for Success in the Poultry Business". Among other things, he stated that those who have made a success in the poultry business are those who have been able to study the business of the day. The personality of the party conducting the business is a most important factor. The successful poultryman is the one who undertakes his daily task with the mental attitude of the joy of doing, or in other words not work but play.

Plan the Work and Work the Plan

It is essential that one can plan the work and also work the plan. About one in ten can put himself to work and only one in a hundred who can put the other 99 to work. Many one-man poultry plants fail owing to the inability of the owner to put himself to work and it is equally true that there are successful one-man plants that fail to grow larger owing to the lack of ability to efficiently direct other people's work.

Professor Graham went on to tell

that hens respond directly to the management given them by the poultryman, and advocated that the poultry business be planned six months ahead of time. He implored each poultryman to work out a system and then adhere to this system. He urged that the poultryman have an ideal fowl and then learn to breed it. After the bird has been bred and the offspring properly reared, the next important step is that of marketing.

Who Should Keep Chickens

In conclusion, Professor Graham urged that only those should engage in the poultry business who are interested and willing to work, to think, to study the conditions from day to day, to be alert, to listen, to read and finally to put all the above into action.

At 6:30 p. m. on Thursday evening more than a hundred attended the annual banquet held at the Center Hills Country Club. An orchestra furnished music for the occasion. A sleight of hand performer demonstrated how easy it is for poultrymen to lose not only hens but eggs should this gentleman be turned loose in their poultry yard.

Other speakers were Dean R. L. Watts of the School of Agriculture of the Pennsylvania State College, Professor W. R. Graham, Ontario Agricultural College, Guelph, Canada, and J. W. Parks of Altoona, Pennsylvania. The Associations went on record as being in favor of the State College Bond Issue and have been diligently working in its behalf.

On Friday the business session of the Pennsylvania State Poultry Association was called to order by the president, J. P. Logan of DuBois. The educational program during this day consisted of talks by Professor Kennard on "Methods of Feeding Chickens" and by Professor Graham on "Breeding Chickens".

Fowls Raised in Confinement

Following these talks, the members inspected the poultry farm of the Pennsylvania State College where they observed the second generation of fowls raised in confinement. This system of raising fowls was advocated by the Poultry Department of the College in the spring of 1927 and during the past year hundreds of farmers throughout the state have been able to prevent serious losses from disease by rearing their birds in this manner. It has demonstrated also that the vitality of the fowls has not been reduced in the second generation and that the birds raised in confinement hatched a higher percentage of eggs set than those given free range.

In connection with these meetings, the Sixth State Standard Production Poultry Show was held. This show is operated entirely by students specializing in Poultry Husbandry at the Pennsylvania State College. Between four and five hundred birds were exhibited by poultrymen throughout the Keystone State.

The Baby Chick Association elected the following officers for the ensuing year: President—P. T. Kistler, Towanda, Pa.; first vice-president—Livingston Blauvelt, Honesdale, Pa.; second vice-president—M. A. McKnight, Carlisle, Pa.; secretary-treasurer—H. C. Knandel, State College, Pa.; director for three years—G. Henry Hocker, Milanville, Pa.



Material for a Lot of Thanksgiving Dinner is Seen in the Turkey Flock

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Starts Hens Laying
Here's a New Way to Get Eggs in Winter
Costs Nothing to Try

A letter from Miss Dama Wright, Vancouver, Wash., has a real idea for chicken raisers who are not getting plenty of eggs. She says: "Late in October, our fifteen hens were laying at all. I started giving them Don Sun's egg mash and for ten days they still didn't lay. But on the eleventh day they laid thirteen eggs. It is wonderful what Don Sun's has done for our egg basket."

Don Sun's, the Chinese egg laying stimulant, which Miss Wright used, are opening the eyes of chicken raisers all over America. The idea can be obtained from the East-End-Durham Co., 131 Postal Station Bldg., Indianapolis, Ind. Poultry raisers who need a package (or \$1 for the extra large size, but three times as much). Don Sun's is positively guaranteed to do the work or money promptly refunded, so it costs you nothing to try. Now is the time to start giving Don Sun's egg mash, so you will have a good supply of fresh eggs all winter.

Mention Pennsylvania Farmer

November 17, 1928

November 17, 1928



Clipping from the
Publisher's Page
CAPPER'S FARMER
September, 1928

Bel in the office of his corn.
ELMER AMBORN, La Crosse county, Wisconsin, received a gross income of \$3.60 from his chickens last year. Of that \$3.60 was net. He knows his hens are paying. By keeping accounts of his egg yield and costs he discovered that a ton of egg feed gave him \$30.50 worth of eggs more and lasted 36 hours longer than another feed. By keeping records he has learned that under his conditions he can buy poultry feed more cheaply than he can own land and produce it. Isn't that information worth having? Isn't it worth while to know that one feed is worth \$30.50 more a ton to eggs produced than another?

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Somerset County Turkeys

SOMERSET COUNTY, Pa., is winning an international reputation in turkey growing achievements. From their flock of 500 Bronze turkeys Bird Brothers recently sold a dozen breeding birds to President Calles of Mexico. They also consigned 22 breeding Partridge Rock chickens.

The Bird brothers have long been nationally known as breeders of Bronze turkeys and Partridge Rock chickens. In their exhibiting at the Madison Square Garden Poultry Show in New York City they usually capture 17 of the possible 20 first prizes, according to C. C. McDowell, agricultural extension agent in Somerset county. They also are members of the famous Keystone 400-Bushel Potato Club.

Another grower of note among the Somerset county turkey producers is R. W. Lohr. This was his first season in the business and he used the best methods advocated by the agricultural extension service. As a result he grew 1,000 birds and had the exceptionally low mortality of 13 per cent. Sixty head were sold to the brother of Henry P. Fletcher, ambassador to Italy.

Walter Beck and Son, Somerset county, have recently entered the turkey growing game. General farming is their long suit and turkey raising a side line. Old-fashioned methods had been used until this year, when the best information available was put to work. The Becks decreased mortality from 50 to 30 per cent, as a result, and raised 500 birds from eggs hatched in an incubator at the farm.

Another turkey grower on a smaller scale is Howard Peck, who raised a flock of 100 birds. He lives on the farm owned at one time by his great-grandfather. It is located in the mountains and affords natural conditions for rearing turkeys. Mr. Peck also is a pure-bred Shorthorn breeder and has gained a wide reputation as a maple syrup and sugar producer. E. H. Rohrbach.

Lame Pullets

I HAVE been losing some pullets. They at first seem a little lame. In a few days will drag one leg and seem to have lost use of it. They eat well, are fed a laying mash and corn, have the farm for a run. Some time ago I had some whose legs just spraddled out and they could not walk. I lost eight or ten, but that was six weeks ago. Now the trouble seems to be mostly in one leg.

MRS. ARMSTRONG JONES.

LAMENESS in pullets has three possible causes: intestinal worms, coccidiosis and range paralysis. I would advise you first of all to open up an ailing bird and examine the intestinal tract. If you find roundworms in the intestines add two per cent of tobacco powder to the mash for three weeks, which acts as a vermifuge. If you find the intestines inflamed and the blind guts or caeca enlarged and filled with cheesy or bloody material, the trouble is doubtless coccidiosis, which can be helped by a liberal allowance of sour milk or condensed buttermilk in the diet. In the event that you do not find either of these conditions, the trouble is probably due to range paralysis.

Unfortunately little is known about the cause or cure of this disease. The affected birds first become slightly lame, then lose the use of their legs, and finally become emaciated and die. Birds apparently in the best of condition are often stricken, and their appetites usually remain good until the end.

About the only thing I can advise you to do is to remove all lame birds as soon as discovered, and be careful that everything about the poultry quarters is kept in a clean and sanitary condition. No doubt birds showing the first symptoms of range paralysis, which is thought to be a nerve disease, are perfectly wholesome to use as food if you care to do so, provided they are taken when the lameness first appears, and before they become emaciated.

R. L. S.

Eggs
are going
to be
high!



THERE is a shortage of eggs—not only in the visible supply in storage, but it is a fact that there are thousands less pullets now laying, or that will come into laying, than at this time last year. Flocks that are in prime condition will lay the proverbial golden eggs for their owners this winter.

Under these conditions you want the heaviest egg yield you can get from your flock. You will also want some hatching eggs early next spring if your hens are pure bred. You will want your birds to maintain their vigor so that their eggs will be fertile and insure strong chicks.

The UBIKO All-Mash Complete Laying Ration is the feed that supplies the right kinds and amounts of nutrients to keep your layers up to a high pitch of production, and

at the same time maintain a good level of health and vigor. It is made by mixing a large variety of the finest ingredients obtainable, all of which have been tested and their value determined for high egg yield. The variety of the ingredients also insures proper balance and the completeness of the protein.

Get ready for a profitable winter—ask your dealer for UBIKO All-Mash Complete Laying Ration and feed it liberally. Your hens will respond with more and better eggs and you will profit accordingly.

Literature on request

If you want to know more about the UBIKO All-Mash System we will gladly send our booklet. Our Poultry Department will also gladly answer any questions regarding feeding, housing, culling or disease.

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POULTRY

WHITE WYANDOTTES. Everything from hatching eggs up. Large Size, Heavy Layers. Cuckoo. Sherman Bowden, Box 195-B, Mansfield, O.

BARRIED ROCK — WHITE WYANDOTTE Cockerels and Hens. J. L. Evans, Spencer, Ind.

DARRED PLYMOUTH ROCKS. Big, vigorous, well barred, Mar. hatched cockerels. Rescued from high producing state fair winners. C. L. Evans, Spencer, Ind.

Lakenvelder Cockerels \$4.00 each. Lakenvelder Farms, Box 35, R. 3, Indiana, Pa.

Golden Buff Rock Cockerels \$4.00 each. W. H. Shaffer, R. 1, Farmington, Pa.

JERSEY BLACK GIANT COCKERELS. Marcy strain. Real Giants. \$2.50 to \$4.00 each. Dan E. Hershberger, R. 2, Baltic, Ohio.

Cockerels. Single Comb Reds, highest quality from two farms. Tompkins, and Can. Rec. of performance stock. Harold Frick, Mercer, Pa.

AYLESBURY and ROUEN DUCKS. Embledon strain. Dumb hatched from prize-winners. SHALLENBERGER FARMS, Mansada, Ohio.

AWARDED GRAND CHAMPION SWEEPSTAKES. young (see Buff Rocks, over all breeds). Ky. State Fair. Grand Champion and big. Hens Chinese (green and white) and black. J. C. Clipp & Son, Box D, Campbellburg, Ind.

300 Rhode Island Red Pullets for prompt delivery. Well bred healthy birds. Hens no room for them. \$1.00 each. If taken promptly. Stockton Hatchery & Poultry Farm, Stockton, N.J.

BARRIED ROCK PULLETS. 7 months old. Thos. O. Marshall, R. 4, Honesdale, Pa.

MUSCOVY, PEKIN, BUFF, RUNNER. Crested ducks. Blue, large stock. Reasonable. B. F. Kahler & Son, Hughesville, Penna.

TURKEYS.—Huckeye strain Giant Bronze, large, healthy, vigorous breeding stock. Chelated time. Pleasant-Ridge Turkey Farm, Bucyrus, Ohio.

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Special Fall Prices on high-class breeding Turkeys, Geese, Ducks and Geese. Write your wants and for mailing list. Pioneer Stock Farm, Toward, Pa.

Normandy Farm Bourbon Red Turkeys.—Prize-winning strain, large, luscious, splendidly colored young toms, \$12 up, young hens \$10 up, large Rock, must please or all charges refunded. Also Muscovy, dux, Toulouse, geese, and Jersey Black Giants, pullets and cockerels. All best obtainable quality. Helene V. Norman, Street, Md.

EARLY HATCHED Mammoth Bronze females, \$4 each, two being the smallest order taken. Plymouth Turkey Farm, Plymouth, N. H.

Mammoth Bronze Turkeys, bred for vigor, color, size and egg production. Prices reasonable. Beck's Turkey Farm, R. 1, Rockwood, Pa.

GIANT BRONZE TURKEY TOMS. Massive bone-rich copper Bronze Plumage. From our National winners. Disease free. J. C. Clipp & Son, Box D, Campbellburg, Ind.

To know what to buy—read the advertisements. They will keep you informed of the latest and best products of the manufacturers. Their aim is to meet your needs. You will find that time spent in reading the advertisements is time well spent. Read them regularly, with care, and when answering, mention PENNSYLVANIA FARMER

New help for 25-mile feet



Will your boots stand this?

Think of the punishment your boots must take—scuffing over concrete feeding floors, scraping through ice and mud!

In the Blue Ribbon testing laboratories a machine presses rubber against swiftly revolving emery—very much like holding a boot against a grinding wheel. The rubber in some footwear chafes away at the rate of 4.5" per hour. The standard for "U. S." Blue Ribbon Rubber is 1/5" per hour. No wonder they outwear others!

The 300-farmer test

All told, Blue Ribbon footwear must pass 12 laboratory tests. On top of that, 300 farm workers help us check up Blue Ribbon wear in the hard grind of actual service. They wear cross-mated boots—a "U. S." Blue Ribbon Boot on one foot and a competing boot on the other. By watching these results we make certain that Blue Ribbon Boots outwear others!

Make this test yourself

Twist a "U. S." Blue Ribbon Boot. Then let go and watch it snap back! It's as live and elastic as a rubber band. You can stretch a strip cut from the upper more than five times its own length! Where constant bending cracks in inferior footwear this rubber stands up!



"U. S." Rubbers

Whatever type you prefer—you'll find it in "U. S." Rubbers—a style for every shoe.



"U. S." Galosh

You'll be glad to wear this sturdy, good-looking arctic anywhere. It has a long-wearing gray or red sole and the finest quality cashmere upper. Fleece lining for extra warmth. 4- and 5-buckle heights.



"U. S." Blue Ribbon Walrus (all-rubber arctic)

Red upper. Gray sole. Four or five buckles. The most useful shoe on the farm. Slips right over your leather shoes. Kicks off in a jiffy. Washes clean like a boot. Made of the "U. S." Blue Ribbon rubber, it is built to give you the longest wear you ever got from an overshoe.

"U. S." Blue Ribbon heavy footwear

25 MILES—in a single day many a farmer averaged that in his daily work in a recent test made by the National Society for Foot Health. Whether you walk that much, or not, you know how you depend on your feet. That is why you will be glad to learn that you can now get better rubber boots and overshoes than you ever had before.

Anybody who has ever put a hog in a dipping vat, or cleaned out a barn, or watered the stock on a cold winter's night, knows a farmer can't have foot comfort without good boots to keep his feet warm and dry.

Today's "U. S." Blue Ribbon Boots have no superior for fit. So naturally you don't feel nearly so tired at the end of the day.

But best of all, this new comfort is teamed up with longer wear. We make the new "U. S." Blue Ribbon merchandise to outwear any other rubber footwear under similar conditions of service. We force it to pass 12 separate tests before offering it to you—we know what it will do. There isn't any guesswork. When we say, "Wear today's 'U. S.' Blue Ribbon rubber boots and overshoes and you will get more wear"—we are telling the absolute truth—tested and proved.

Longer wear—this tells why

In the "U. S." Blue Ribbon testing laboratories a machine presses rubber against swiftly revolving emery—very much like holding a boot against a grinding wheel. The rubber in some footwear chafes away at the rate of 4.5" per hour. The standard for "U. S." Blue Ribbon Rubber is 1/5" per hour. No wonder many farmers say these amazing Blue Ribbon Boots outwear others!

United States Rubber Company



"U. S." Gaytees

Gaytees is the trade-marked name of the new tailored overshoes made only by the United States Rubber Company. Beautifully designed. New styles, new patterns, new fabrics. Smart as a Paris slipper. See them!

Also a complete line of overshoes with Kwik-glide fasteners. Of course, for women's use around the farm, nothing will ever beat the trim "U. S." cloth-top, buckle galosh.



"U. S." Blue Ribbon Boots

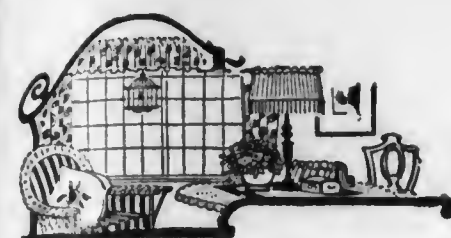
Red or black uppers. Gray soles. 11 lengths—knee, medium, hip. Any just-fitted length can recognize the super-quality instant he sees and handles these boots. Notice the liveliness of the uppers, the overshoes soles. And every point where it is greatest is heavily reinforced by from 11 layers of Blue Ribbon rubber.



FREE BOOK! The Care of Farmers' Feet

Every farmer who wants comfortable healthy feet should get this free booklet. Written by Dr. Joseph Lelyveld, a specialist, Executive Director of the National Association for Foot Health. It discusses such problems as blisters, ingrown nails, chilblains, corns, fallen arches, how to keep feet healthy, and many more. It also tells how to greatly prolong the life of your rubber footwear following a few simple rules. For "The Care of Farmers' Feet" address United States Rubber Company, Dept. 111, 1790 Broadway, New York, N. Y.

November 17, 1928



Potatoes in Every Way

By OLGA CLARK

IT MUST be the Welsh in me that keeps me constantly on the watch for new potato joys. Some still like them plain baked, some just plain boiled, with or without the jackets, and others creamed, fried, scalloped, mashed—and so on.

For you who favor the baked potato above all, here's a delicious one to put on the festive board:

Potatoes with Sausage Links

Select medium-sized white potatoes, wash and with a grapefruit knife scoop out lengthwise a cylinder into which a sausage link may be slipped. Put one sausage link in each potato, and bake in a moderate oven. Sweet potatoes may be baked in similar fashion.

The following dish makes a meal, if served with a green vegetable, a salad, perhaps, and a dessert, now doesn't it? Try it!

Potatoes and Mushrooms

Place on the kitchen table six medium-sized potatoes, a tablespoonful of butter, a quarter pound of mushrooms, one slice of onion (minced), four tablespoonfuls fine chopped crumbs, one teaspoonful chopped parsley, one egg, thick brown sauce, seasonings. Trim the potatoes after peeling them so that they are round and approximately the same in size. From one end of each cut a piece, so they will stand upright. Put them in a baking dish containing some hot butter and bake in a well-heated oven until they are nicely browned, basting them with melted butter during the cooking. When done, remove a portion with an apple corer or grapefruit knife, and fill the cavity with mushrooms prepared as below. Place the potatoes in the oven for about ten minutes, and serve them surrounded by some thick brown sauce flavored with a little Worcestershire. Place a little piece of parsley atop each.

For the filling, fry the mushrooms and onion in butter for ten minutes, stir gently, then add the bread crumbs and chopped parsley, season with salt and pepper, and stir over the fire for five minutes more. Remove the pan, and moisten the mixture with sufficient beaten egg to thicken it. Stuff into the potato cavities and bake as directed.

Balloon Potatoes

Here's a real potato trick, a French one, if you like—pommes de terre soufflées. Perhaps you have eaten potato chips and noticed how an occasional one swells like a little balloon, and wondered how and why. Then if you've ever eaten balloon potatoes hot and right off the grill you demanded to know the trick. Peel and slice crosswise, a little thicker than for ordinary sliced potatoes. Stand in ice water for one hour. Dry thoroughly in a towel and



fry, a few at a time, in deep, very hot fat, until each potato swells like a little balloon. Serve at once. There, now you have a recipe, for French chicane in potatoes.

There's a rumor to the effect that northerners don't know the first thing about cooking sweet potatoes, proved, indeed, quite easily by the deliciousness of some of the southern sweet potato dishes. In the South from digging time in the autumn until planting time in the summer the sweet potato is the staff of life—and so time-honored ways of cooking sweet potatoes southern are to be emulated.

Sweet Potatoes Louisiana

First boil the sweet potatoes. Cut in two, grill lightly and put in a little baking dish with sliced bananas. Then lightly butter both the potatoes and the bananas on top. Pour maple syrup over all until covered, put back under the grill until browned, and serve hot with roast ham or a game dinner. This same sweet potato dish is varied; ap-

ples take the place of bananas, or pineapple sliced thin, appears with the sweet potato. Always there is the generous buttering, the maple syrup drizzle, the brief hot grilling.

Sweets in Honey

Peel and cut in one-half-inch slices lengthwise. Boil 15 minutes. Then drain and remove to a warm casserole. Add a jar of honey and the juice of one-half an orange, salt, pepper and finish cooking in the oven.

Potato Topped Loaf

This makes a one-dish dinner, and is a mashed-potato make-over. Combine in the order given one-half cupful cooked rice, one-half cupful bread crumbs, one cupful tomato, one egg, well-beaten, one-half onion, chopped, two tablespoonfuls green pepper chopped, one teaspoonful salt. Place in buttered casserole and cover with two cupfuls mashed potatoes and dotting with butter, bake in slow oven.



A Beautiful Remodeled Farm House

Snug as a Bug in a Rug

By GERTRUDE S. STEWART

THERE is no need for the woman of today to freeze to death in a perfectly natural desire to be stylish. If she gives a moment's thought to wise protection and then shops for comfort as well as style, she'll be both warm and well dressed.

No one really chooses to be conspicuous by appearing radically different from all the other women with whom she is thrown in contact. That is deadly. It merely enlarges the inferiority complex and you become not only cold, but all other sorts of disagreeable feelings crowd upon you.

Did you know that many a beautifully clad woman is not shivering a whit in her daintiness because she wears soft, light woolens underneath? That chiton stocking is covering one of flesh-colored cashmere. It adds no bulkiness, is not noticed because the same color as her skin, and it costs but fifty cents for the pair. We all know just one evening of comfort is worth more than that!

Be Chic and Warm, Too

And have you seen or heard of the snug protectors worn today under the very loveliest gowns? Let me tell you about them. They are knitted slips, made in all colors, light and dark. You can buy them knitted of finest wool yarns, or silk and wool, rayon with wool, or cotton and wool, the prices varying accordingly.

This garment is indispensable to

every woman who appreciates comfort and must be up-to-date, too. It can be worn under your very smartest gown and you will be happy and warm.

A Remodeled Home

THERE is considerable interest in this matter of remodeling old-fashioned houses, and modernizing them to present-day standards. There is great need of this work and especially on the farm where families have lived for generations in dwellings built in the days prior to the adoption of modern conveniences for the housewife such as are becoming very common today.

The house shown here is a good example of what can be accomplished at a price that is not prohibitive, in remodeling an old house and making a beautiful and modern farm home from a very old and ordinary stone building.

The original house, built on the farm some fifty odd years ago, was of native stone with walls thirty inches thick, and is today in excellent state as to stability. However, the house was too small and the arrangement of very unhandy nature. The old stone walls were given a thin coat of grey stucco and the frame portion added. The new addition is composed of a good-sized dining room, spacious bath room and kitchen. As is shown on the south four large windows allow ample light and

make the room delightful in cold weather, due to the southern exposure. The house faces the east and a large front porch was added, and a smaller one on the south with door leading into the new kitchen.

The roof is green and the white color of the new addition contrasts very attractively with the grey of the stucco finish on the old stone walls. A spacious garage at the rear also holds the farm lighting plant, which is of modern construction. Thus the home is provided with light and running water on every floor.

The basement is large and contains a good furnace, laundry, storage rooms and one very comfortable room for the hired men. The house sets well back from the highway and is fenced with steel posts and woven wire. Trees and shrubs have been planted and the lawn seeded to grass. The whole aspect from the highway is one of simple beauty and comfort. David Gray.

When Winter Comes

By HEPSEY NEFF

NATURE seems to persist in trying to teach us that every effect must have a cause. The explosions, a few months ago, from a volcano which literally destroyed an island in the southern Pacific ocean may have meant little to those of us who read about it, because of the great distance between those islands near Australia and our own land. But to our scientists, with some knowledge of the size of the island, the volume and duration of the explosions and the amount of dust and ashes thrown into the air, it was an event to be reckoned with. We may not ask what becomes of those millions of tons of dust and ashes, for only trained minds can suggest an answer and this has already been done. While the earth continues to turn on its axis any such disturbance on its surface must be carried along, just as the water poured on a whirling grindstone while sharpening a blade is carried around the surface of the stone. Just so this huge mass of dust and ashes, thrown with such force as to carry it high into the upper air, must cling to the earth's atmosphere and be carried along as it falls. It is safe to say that the whole earth surface is being wrapped in this dust blanket; that it must come between the earth and the sun, cutting off much of the sun's heat. This makes the basis of the prediction for an unusually cold winter. How long the effect of this dust blanket may be felt only time can show.

The Smoke Screen

Because scientists have learned that the smoke and dust of large cities makes a barrier through which the live-giving violet rays of the sun do not penetrate it seems more than likely that the same thing must happen while this dust blanket remains. In that case there are still further facts for us to consider. We



Adventures of the Brown Family

By PHILIP KANE

BETH uttered a cry of surprise but Hal muttered a savage, "So that's why the old lady wanted to find out where I was going!" Aloud Hal remarked, "Well, that's one more fight on our hands. We haven't been run off yet and we aren't going to be. Take care of the folks, Jack. Uncle Neh, I know you'll look out for 'em, too. I'll let you hear from me."

Hal Brown was away on a quest which after all held little of promise and all the family with wet eyes watched his departure while Black Neb prayed fervently, "Oh Lawd, watch ober Young Marse an' bring him safe home agen."

As he traveled the long road leading to his destination, Hal Brown was torn with a conflict of emotions. The buoyancy of youth and the natural urge of adventure kept his spirits high as he crossed the border at Matamoros but the strange sights and sounds soon depressed him. Husbanded his money, Hal had chosen to ride in a day coach which he found filled with Mexican peon men and women who gazed at him with curiosity and he fancied, hostility. There was not another English appearing person on the train and Hal's labored Spanish provoked laughter and a torrent of swift-spoken answers and questions which left him figuratively gasping for air.

"And I thought I could speak Spanish!" remarked Hal aloud to himself. "As a Spaniard I'm a first rate corn shucker. Gee, wonder how I'll ever make myself understood."

"Pardon, señor," remarked a swarthy occupant of the seat across the aisle. "I speak English. I shall be glad to help you. I go to school in the States."

"Thank you," said Hal gratefully. "I get along pretty well in Spanish—if I can take it slow. But this pace is too fast for me."

Hal smiled his infectious grin and his new found friend, a lad of about Hal's age, smiled. "It was that way with me with the English," he remarked. "But you will improve with practice. May I sit with you?"

Soon Hal's new friend was pointing out things of interest along the way, explaining that the peon farmers with their plodding oxen and primitive plows were working as their forefathers had and that it was a hard struggle for mere existence. "Of course," added the Mexican boy proudly, "on the hacienda of my father we do not do things that way and therefore that I may learn more I go to school in your own country. I am returning to my home which is near Monterey."

"Is that near Celaya in the state of Sonora?" inquired Hal. "That is where I am bound for."

"Celaya is in the state of Guanajuato," corrected Hal's friend. "If you have been told otherwise it is a mistake. A quaint old town with little modern. You will find few if any Americans there. And now, may I ask your business?"

"When in Rome?"

FOR a moment Hal hesitated. Should he confide in this chance friend who might impart valuable information. The chance seemed worth taking for he would need help. "It is about mining interests," Hal answered guardedly, "and I must find a certain young lady who lives in Celaya."

The face of the young Mexican clouded and he eyed Hal narrowly. "Have a care, my friends," he advised. "I, Juan Morales, warn you that in Celaya it is as much as a man's life is worth to speak openly with a young woman. That country is not as in your country."

"It's only for the girl's good," said Hal hastily. "I certainly don't mean to harm her."

"No doubt," observed Morales, "but in Celaya before you call upon a young lady you must be vouched for by someone of good repute and you must talk to her only in the presence of a duenna, an older woman of the family."

"But I don't know anyone in Celaya," protested Hal. "I'd expected to walk right up and talk to her."

"Have a care, my friend," advised the young Mexican. "Do that and at night you are likely to find a knife sticking in you. These Celayans guard their maidens as precious jewels. And they have little use for foreigners."

"Holy smoke!" ejaculated Hal. "Mighty glad I ran across you. As we say in the States, 'Looks as if I've bit off more than I can chew.' But I'm on the way and I'm going through with it." Hal's lips set in a thin line of determination.

The young Mexican smiled again but this time it was in admiration. "You Americans are impulsive," he remarked, "but usually you get what you go after. I like your looks, my friend, and I am sorry that I can not go on with you. Why not stop at Tampico and get letters of introduction from your American consul? If there are Americans in Celaya he will know of them."

"That's a bully good idea," said Hal gratefully.

Heck, I didn't even know we had an American consul at Tampico! I'll stop and give him an earful."

"Your American slang is refreshing," said Morales as again his dark eyes lit with a friendly smile. "And now I must return to my friend. I should like to know if your quest is successful and when you return home I hope you will write to me. Here is my name and address." The obliging young Mexican scribbled on a card which he handed to Hal and with an "adios amigo" returned to his own seat while Hal, staring out of the window at endless miles of cactus thought ruefully of the task ahead of him. And in his heart was an unspoken prayer for the safety of his loved ones back home.

Even as Hal Brown sped on his way, members of the Brown family at home were deciphering a crude message found in their mail box. Printed in pencil on cheap paper the meaning of the message yet was plain and clear.

"We know for why your son is gone," it said, "and unless you have him return at once and leave here far worse than has happened will happen to you. Take warning. Do not delay!" There was no signature.

Henry Brown, mild-mannered and inoffensive citizen who never had been known to utter a curse, ground the paper under his heel while his voice rose as if to carry to waiting listeners. "To hell with you!" cried Henry Brown. "We'll fight. And we'll stay on."

A Friend in Need

TENSED to the breaking point, Father Brown stood while Little Joe, amazed at his father's outburst began to cry. Mother Brown gathered her small son in her arms and soothed him. At times she had urged that all leave Lone Oak and seek a new home but now the spirit of her husband struck fire. The pioneer blood of her fathers which had faced perils called and Mother Brown was ready to stand shoulder to shoulder with her loved ones and fight to win.

"It won't help matters to swear, Henry," said Mother Brown, "but I can't blame you. Hal's gone too far to call him back if we would. We'll see the thing through and with the help of Jack Miller and Uncle Neh I have no fear but that we can care for ourselves. What do you propose to do?"

"We've been passive long enough," said Father Brown grimly, "and now I propose to fight fire with fire. We'll bring Big Judd from the mine and put him on as a night man here while Neh can look after the children when they are away from home. I'm going to get help and watch Fernandez and Jacks, his henchman. I'd stake my life that Fernandez is back of all of this although I don't think that he'd stoop to do the dirty work himself. Jacks is the man who hates us and he'd do anything for money."

"I'm going to 'phone Jack to come over," said Beth. "And I'm going to tell him everything. If he thinks best to have Hal come home we should send for him."

"We'll do nothing of the kind," said Mother Brown sharply. "Hal is going through with his part of the work. It's all right to let Jack know about this but that's all you are to tell him. If he's the man we think he is he'll help fight, not run away."

"He's been helping fight!" cried Beth as a spark of color glowed in her cheeks. "At least I'm going to show him this letter," and Beth rescued the torn scraps.

Worried and anxious by the evident distress in Beth's voice as she summoned him, Jack Miller lost no time in hurrying to the Brown home. "It may be just a bluff," he observed as he studied the sinister message, "but I admire your pluck in sticking to the finish and I'm with you, Mr. Brown, to do anything I can. Fernandez is the only man I can suspect although of course there always will be the possibility that some member of the old pirate crew is responsible."

"They would know nothing about Hal's trip," insisted Father Brown. "I tell you, Jack, this comes close home. It's only three weeks now until we have to give possession, anyway, under terms of agreement with your ward if we can't produce proof we are entitled to stay on. And during that three weeks I'm going to have the Fernandez home watched or watch it myself. I want Big Judd here at the house for he has a keen eye and he's true blue. Some other man can go on at the mine."

"I'll take turn about with you, Mr. Brown," said Jack Miller quietly. "We'll keep an eye on Neighbor Fernandez and that tricky friend he's so much interested in. I'm interested in the safety of this family."

Jack's eyes dwelt on Beth for a moment in a look which caused Beth's glance to fall.

Hal's Journey

"THANKS, Jack," said Father Brown heartily. "You have been as good as another son to us. We miss Hal, and no mistake. He's a fine boy if I do say it," and Father Brown brushed a hand across his eyes.

"That he is," agreed Jack, "and I'll do my best to take Hal's place while he's gone. We may have a surprise for him when he gets back home. I wouldn't think of asking him to come back now."

"I knew you'd say that, Jack," said Beth. "Some day I hope we may be able to pay you for all you've done for us."

"Little enough I've been able to do," said Jack and there was bitterness in his voice. "It seems I've been more trouble than help. I had no thought but that Isobel would do the fair thing by you but for some strange reason she seems determined to drive you away. I can't understand it at all."

"It isn't so mysterious," remarked Mother Brown smiling at her handsome young friend. "But girls are queer creatures, Jack."

"Sure are," said Jack, smiling back. "Well, I'll send Big Judd up for tonight and you will take first watch, I presume Mr. Brown, on the Fernandez place. I'll be on hand tomorrow night."

As they watched his stalwart figure swinging down the road Beth Brown found herself wondering how ever they could have believed Jack Miller a traitor to their cause. "As good as another son to us," Father Brown had said, and now all wounds had been healed and Beth's heart told her that no matter what might be the outcome after days of menace and mystery there was one who was more than friend.

Hal's letter, mailed at Monterey on the first lap of his journey, betrayed none of the difficulties which he had encountered. Chatty, filled with colorful description, Hal made light of his task and spoke only of his great adventure which was to bring full fruition of their hopes. Nor did the letter in reply which was to reach Hal at his journey's end, after he had overcome serious obstacles to get it, tell of new developments at home. The Brown's, stirred to fighting pitch, were out to win.

Acting upon the advice of Juan Morales whom he had met on the train, Hal stopped off in Tampico, Mexico, and went to call on the American Consul. What that suave diplomat told him of Mexican customs in provincial towns was not calculated to make Hal enthuse over the tasks of coming days. Yet having begun the quest he would not turn back.

"Celaya," inquired Consul Stanfield as he bade Hal a cordial welcome. "One of the strange towns of a strange country. At times it has been as much as an American's life was worth to be found there."

"Yes," repeated Consul Stanfield, "there have been times when an American should give Celaya a wide berth. But sentiment now is more friendly and the lone American I know there has had no trouble."

"What's his name?" asked Hal eagerly. "Will you give me a letter of introduction to him?"

"His name is Holt," answered the Consul, "and he's the type who will fight at the drop of a hat. Young, too, who will be glad to see a fellow American. I'll not give you a letter to Holt but one of general recommendation written in Spanish. Beyond that I can only advise you to be careful. Especially that you say you hope to take this girl home with you. She may have a Mexican admirer who will object. No, don't thank me," as Hal warmly expressed his gratitude. "It is a pleasure to serve an adventurous young American."

Armed with his letters of introduction Hal set forth on the final lap of his journey. Had it not been that he was worried and preoccupied, the trip would have been of intense interest. Immense fields of maguey plants cultivated for the juice from which pulque, Mexico's national drink, is made met his sight. As the train stopped at stations along the way, dark-faced girls and women offered Mexican foods cooked on charcoal braziers, among them fat, juicy worms which infest the maguey plants and are considered a great delicacy by Mexican peons.

"That's one way to keep from getting hungry," meditated Hal as he shrank in repulsion from an offering of the slimy worms thrust through an open window. "Man, if ever I get to sit down to a real meal of ham and eggs at home again!" Hal's eyes filled and his voice choked as he thought of the folks at home. Was danger threatening Little Joe again? In Hal's boyish heart there was an unspoken prayer for the safety of his loved ones.

Celaya—quaint old city under a burning sun. A street car pulled by burros through narrow crooked streets. In the center of the town the inevitable park or plaza where fountains played, beautiful flowers abounded and the grass was green and inviting.

Here, if the Spaniard Estrada was to be believed, Hal would find a girl with American blood in her veins who might be more kind than the other Isobel Sanchez who would drive them from the place which had become a real home. Securing a room at the little hotel with its meager comforts, Hal tipped his porter generously and was rewarded with many smiles and bows. Now the thing to do was to get in touch with his fellow American, for all his cards on the table and ask for help.

An American

"SEÑOR HOLT, Americano?" queried Hal with the suggestive fingering of another tip. "Si, señor," was the answer and with a rapid flow of Spanish and expressive gestures the boy made it plain to Hal that he would be glad to show the way. Here was luck. It was evident that the American was well known in Celaya.

Again through narrow, crooked streets Hal followed his guide until finally at a barred door they paused. Hal had noted that almost every door was barred and that eyes had peered out at him curiously as he walked along. A call from the guide, an answering call, and the door opened while Hal stepped within. Busily at work at a desk was a powerfully built young man whose face was burned by the sun to almost as dark a hue as those of the natives. "Is your name Holt?" inquired Hal as he diffidently fingered the sombrero he had acquired after crossing the border. The young man wheeled stared for a second in amazement, then came to his feet with a shout of welcome.

"By all the gods of Mexico!" cried Hal's new friend, "If it isn't an American. A white man in this God-forsaken country. What brings you here and what can I do for you?"

"It's a long story," said Hal as his hand was clasped in strong brown fingers, "and you can do a lot for me. Mind if we talk alone?"

"Vamonos!" cried Holt and as the Mexicans disappeared he pulled up a chair and invited Hal to sit down. "Bother the introductions," said the young American as Hal tendered the letter from Consul Stanfield, "I know by looking at you, kid, that you are all right. Gee, it's great to see an American again. Yes, I'm Holt and a mining engineer. Now spell the whole story. I take it that you are a globe-trotting adventurer and that there's a real reason why you are down here."

"I'm just a farm boy," announced Hal humbly, "who never would have thought of coming so far if it hadn't been almost a matter of life and death. I'm going to tell you the whole story."

Leaning back in his chair as he blew smoke rings above his head, Holt listened in silence. "It seems to me," he observed, "that you've taken a long chance in coming away down here with no more information but now that you are here you'll soon find if your information is correct. It's too late in the day now and, anyway, we need some little time for investigation. Be my guest tonight and I'll take you up to the plaza where all the señoras will be on display during the band concert. They flock by themselves but twice a girl who looks as if she might be part American has acted as if she'd like to speak to me. There is a 'Septem' street here and I know where 16 is located. We'll look over the fair one tonight—but be careful not to speak to 'em. And now forget your troubles and let's have a real visit. I'm only two years out of college and I haven't been home since."

A Discovery

THE hours sped until with his new friend Hal found himself strolling about the brightly lighted plaza while the band played and groups of young Mexicans paraded solemnly, each a separate group. No intercourse was allowed but many were the ardent glances cast.

"Custom of this old town which is bossed by the padres," explained Holt. "By George, there's the girl now that I was telling you about! She's marked you as an American, I can tell by her smile."

Hal Brown's heart beat like a trip hammer as a slight, dark-eyed girl eye one with unmistakable American features came toward them.

"I'm going to take a chance," breathed Hal, "and speak to her." "Are you Señorita Isobel Sanchez?" Hal queried softly in English. Over the face of the girl flashed bewilderment and alarm then she began to speak.

"Now you've done it," muttered Holt and there was both anger and admiration in his voice. "See that young Mexican looking at you?"

"I don't give a rap," replied Hal and again he asked the girl who had paused and stood irresolutely, "Are you Isobel Sanchez?" for she had merely murmured a Spanish salutation.

To Hal's joy the answer came in English although with a marked accent. "I am, señor," replied the girl, "and I, too, am American. How do you know my name?"

swered Hal eagerly, "if you will meet me somewhere so that I can talk to you. May I walk home with you?"

Before the girl could answer, a young Mexican with a gaudy serape about his shoulders strode over and rudely shouldered Hal aside while he poured out a torrent of Spanish words in abuse. Hal caught the words "dog" and "swine" and with the instinct of an American boy to use his fists drew back for a blow when Holt caught his shoulder in a firm grip.

"For heaven's sake, Brown," hissed Holt, "don't start anything here. I like a fight but we are outnumbered a hundred to one. Adios señorita," and Holt pulled Hal away while the Mexican youth resumed his place with the other watchful gallants, all of whom were casting black looks in the direction of the hated "Americanos."

"I don't give a whoop," insisted Hal stubbornly as he kept an eye on the girl who had said she was Isobel Sanchez. "I'm going to talk to that girl before she gets away from me where I may never see her again. If you don't stick with me I'll go it alone."

"Keep your shirt on," advised Holt. "I'm not one to leave a fellow American in the lurch—but I know these people. It would simply be suicide to keep on here but I'm game enough to take a chance and follow her home. Here, I'll bribe a beggar to slip her a note that you can write. If she can speak English she should be able to read it and if anyone else gets the message they won't know what it is. She's probably romantic enough to welcome a visit from a handsome young American. And if she's Spanish or Mexican she won't care especially if you do get carved up visiting her. Tell her you'll follow and signal her after she gets home."

Dangerous Ground

THE note was written in a secluded corner of the plaza and Hal watched with mounting excitement as the beggar, hand outstretched in appeal, paused before the girl he had accosted. Watching her intently although from a distance, Hal caught a nod in his direction. "O. K.," Hal assured Holt. Then with a chuckle, "I'd add 'MNX' but reckon you are not up on Barney Google and his Billygoat club. Hope she leaves soon."

"There may not be anything funny about this," admonished Holt. "Keep your gun handy and come on. She's leaving now. We'll slip down this side street but keep her in view."

Stealthily the two Americans followed the retreating form of the dark girl and her companion, down dimly lighted streets, stepping over sleeping babies as they lay outside of barred doors, the family gathered about, past swarthy lovers courting their sweethearts through barred windows, until finally they paused as the robed figures passed through the door of a pretentious looking home. "Fine, so far," whispered Holt, "and now it will be up to me. I'm going to tell 'em in Spanish just what's wanted and see if they'll let us in. You stay here in the shadow. That hombre may have followed, too."

Softly Holt called in Spanish and soon to Hal's joy the barred door opened and he was beckoned within where with the girl Hal and Holt found a courtly Spaniard and his senora or wife. As Hal looked at the girl now unveiled it was not difficult to see that she was indeed of American blood nor was there mistaking the fact that there was some likeness to the girl pictured in the photograph shown him by Mrs. Fernandez. With American frankness Hal came straight to the point while Holt translated for the benefit of the girl's kinsman. "And now," Hal concluded, "will you go home with me and prove you, not the girl who too bears your name, are the true heirs?"

The Cheerful Plowman

The Old Teakettle



THAT old teakettle, bless its tin, has long survived its oldest kin, for other pots and metal friends, old ancient pans of varied blends, have long ago gone bad with rust, gone back to elements and dust! My mother owned that kettle when I wore kilts and curly hair and it descended unto me to boil the water for my tea. It's had an office in the house since I wore copper toes and blouses. That thing has saved my life, I fear—well, on an average, twice a year, by heating up hot stuff for me when I walked near eternity. One night I took a fearful pain right in the attic of my brain; there was no doctor very near, the end was very close. I fear; but mother heated water hot, put applications on the spot, and when the sun rose clear and bright my head again was working right. One time I sprained my southern leg by stepping on a croquet peg. There was no liniment around, no medicine could then be found. So my good wife took this old thing, she heated it and made it sing, then she applied hot towels and socks in bed, flocks, in socks and stocks. That saved the day for soon I talked, stood up and limped, and then I walked! How many little baby swine, and dainty little baby kine this kettle here has saved from death, restored to normal health and breath, I could not say, but I am sure on ninety-eight it's worked a cure; and baby chicks and baby calves, old roosters and their better halves, have all been treated, healed, yes, been saved for useful life. I guess! It's just a simple hunk of tin inlaid with iron as hard as sin, but none the less this cheap old thing on this old basement stove, by jing, has been a good physician here and saved our family year on year. I hope I've done my task as well, but here I! Have I? Who can

"I WILL go!" cried the girl with spirit. "It was because Isobel was cruel and abusive to me that I ran away. The good God has sent you to me, Señor Brown, and I will trust you. All shall be well with you when we reach that dear America which I have always longed to see."

"You need have no fear, Miss Sanchez," assured Holt gravely. "Although I have known Hal Brown but a few hours I know he is a young man you can safely trust. And now we will bid you adios and call for you tomorrow."

It all seemed too good to be true and Hal heaved a sigh of relief as again they were in the street. "Won't I have some surprise for the folks," Hal gloated, "and not a blamed thing happened so far that amounted to anything. This is a tame country." But Hal's self-congratulation was cut short. Out from the shadow of a building came the young Mexican gallant who had attacked him in the plaza. With him was a companion. A rush and they were upon the two Americans, knives flashing, curses befouling the night air.

"No guns!" yelled Holt, "use your fists." Ignoring the threatening knife, Hal met his opponent with a fierce smash to the jaw which stretched him flat. Holt had seized and disarmed his opponent as Hal's man came at him again and again to be met with a crashing blow which this time left him senseless. "We'll get out of here as fast as the Lord will let us," said Holt. "It's no disgrace to fight and run away. These hombres won't bother any more tonight. And tomorrow you'll be on your way."

There was no further attack and on the morrow Hal Brown found himself accompanying a shy, sweet young woman as unlike Jack Miller's ward as day from night while Engineer Holt, the American who had befriended Hal, stood by with watchfully open eyes as they awaited the train. "Hey!" said Holt suddenly as he heard his name called. "Here's a message for you, Brown, in my care. Forwarded from the consul at Tampico."

With trembling fingers Hal tore open the envelope. The message was from home but had been translated into Spanish. Slowly he spelled it out and then a yell which woke the echoes again set the Mexicans to muttering about "loco Americanos."

"All well," said the message. "Have captured man who makes trouble. Confessed." Hal's father's name was signed to the message.

Home Again

UNANNOUNCED and purposely timing his arrival so it would be after midnight, Hal Brown and his charge arrived at the home town after days of weary traveling. But during those days Hal Brown had come to realize that a precious jewel had been entrusted to his care. With all the beauty of her kinswomen, Juanita and the false Isobel, the true Isobel Sanchez combined a sweetness of disposition and a keen intelligence which made strong appeal. Hiring a conveyance, Hal with his protégé set out for home.

"Thank God! Thank God!" Once more Hal was clasped in his mother's arms while his father pressed his hand and Beth and the other children shouted glad welcome. Only for a moment, though, and Hal led forward a blushing, smiling maiden who had approvingly watched the demonstration of affection. "The real Isobel!" cried Hal. "An Isobel you will learn to love."

"Even now I feel I know you," said the Spanish-American girl shyly after warm greetings. "I owe so much to Hal that I shall never be able to repay him. But I know Hal is dying to hear all that has happened since he left here so long ago."

"Yes, dad," broke in Hal, "tell me quick what you meant in the message. Was I right? Was it Jacks and Fernandez?"

"You were right," answered Father Brown gravely. "We never wrote you but I received a message warning us to leave and to call you home. Taking turn about with Jack Miller, I watched the Fernandez home while Big Judd kept guard here. Nothing happened for a few days and then Judd saw a man skulking about the house and took a shot at him. It was one night, though, that Jack watching the house saw Sam Jacks come out and sneak off toward our mail box. Jack followed, saw Jacks drop a letter into the box and stuck a gun in Sam's ribs. The letter was another warning message and when Jack brought 'Slippery Sam' here we found a way to make him talk." Father Brown smiled grimly at the recollection.

"But what part did Fernandez play?" demanded Hal. "I can't believe he would do us real harm."

"Well," replied Father Brown, "Fernandez was backing Jacks. But he knew nothing of that attempt to burn the house because Sam had slipped over here and set the fire after they tried to blow up the mine. 'Slippery Sam' is back in jail and our Spanish neighbor has left for parts unknown."

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The MARKET PLACE

By W. R. WHITACRE

THE seasons speed past and now with another Presidential election completed we realize that Thanksgiving is near. Now is the time to plan for this marketing opportunity. Thanksgiving with its traditional dinner brings a demand for many farm products. Folks who are dying to bring slender figures forget it for the day and those with slender pocket-books stretch them a bit to have additional good things for the table. Aside from the serious side, which is to give thanks for our blessings, the order of the day is to "eat hearty".

Turkeys and other kinds of poultry are the popular meats of this holiday and growers in all sections of the country will be shipping to the large eastern markets. Turkeys and poultry intended for the Thanksgiving trade should arrive on these markets not later than November 26th, and since transportation lines are likely to be congested, shippers should make allowance for delay.

At present prospects indicate that there will be an ample supply on the market and it seems advisable to hold back the birds that are not fully matured and well fattened. This stock may be marketed more profitably later on. Fat geese and ducks are becoming more popular with the Thanksgiving trade while roasting pigs are preferred by some.

Ship to Reliable Dealer

One of the most important points is to ship to a reliable dealer. Do not be misled by rosy promises and high quotations. I know one "shady" dealer who promises top prices. He writes in this way: "We have investigated conditions carefully and find that in most states there are fewer turkeys than last year. Storage holdings are about the same and the market should be very good. Of course the market will be affected by weather conditions, receipts and quality but we believe that the following prices will prevail. If the market should be higher than these prices your interests will be taken care of."

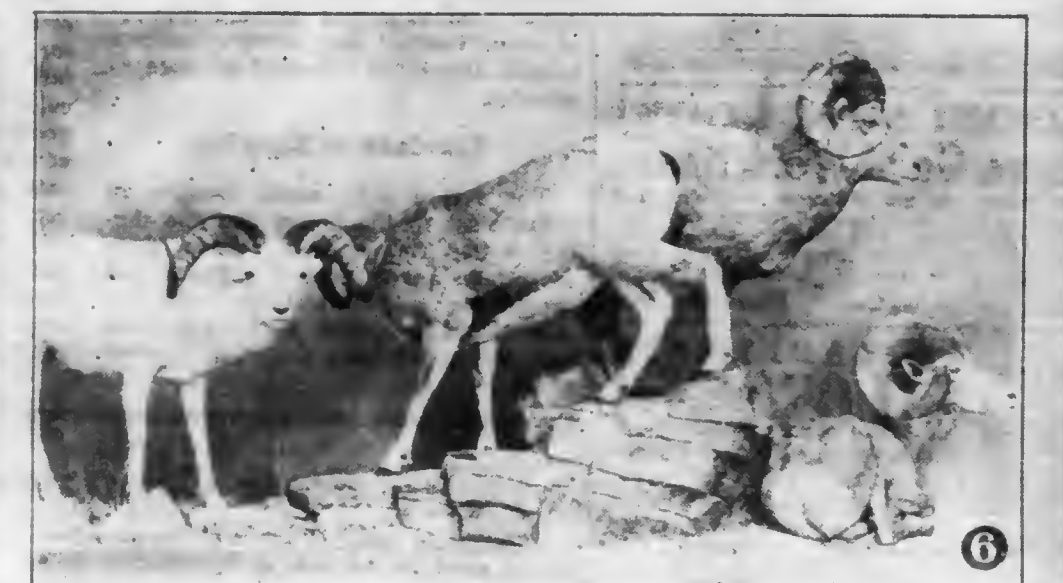
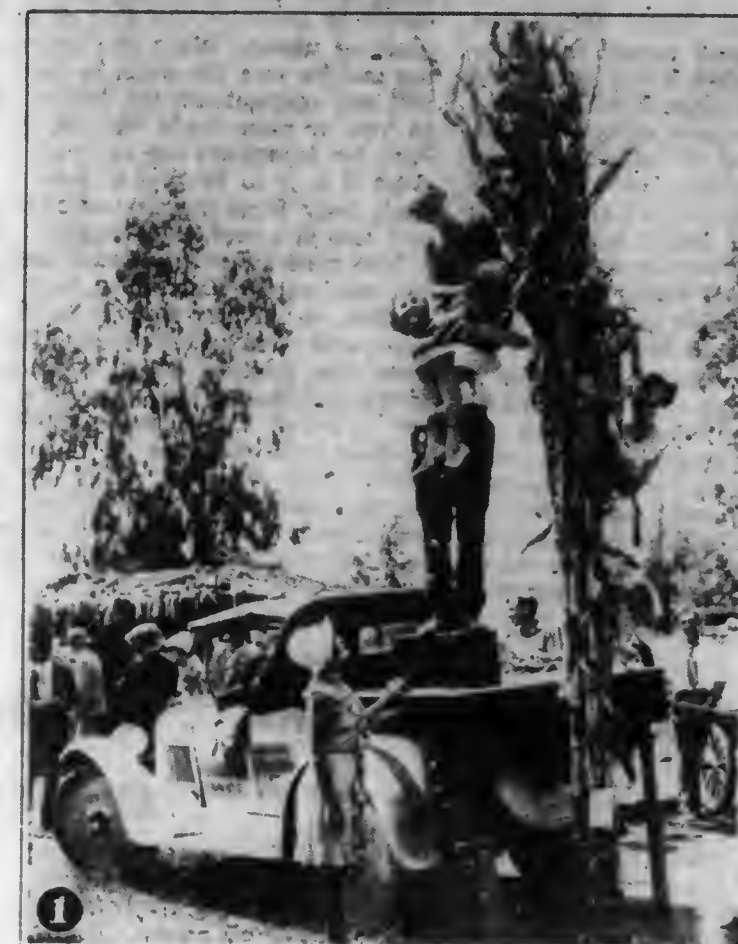
I am not trying to give the impression that the poultry dealer is a crook, for only a comparatively few are dishonest. The honest dealer resents these men and would like to have them out of business as they hurt his trade. These "shady" dealers can take advantage of the farmers better at such a time than usual, since there are more farmers who are not familiar with the market and marketing conditions shipping than at any other time.

Shipping Practices

The fact that many of these growers are not familiar with shipping practices results in large losses. Sometimes poultry is placed in makeshift crates that break and injure the birds. The methods used in dressing poultry make a big difference in prices. There are many instances when poultry has been packed in barrels before the animal heat has been incompletely driven out. The poultry heats in transit and is unfit for consumption when it reaches the market. These conditions bring about much dissatisfaction since the farmer receives very low prices and does not realize that the dealer is not to blame.

The honest firm does not make extravagant claims and it has usually been established at one location for a number of years. Your bank will be glad to give you the financial rating of most any dealer that you desire to ship to. A neighbor may know a reliable man and your county agent or State Department of Agriculture can supply

EVENTS CAUGHT BY THE CAMERA



(Copyright by Underwood & Underwood)

1. Tall corn—this 15½-foot stalk didn't grow in Iowa but in San Diego county, California. That's a record for California and rivals even the high stalks in Iowa.

2. An Oriental baby-carriage.—Photo shows a primitive perambulator—the kind which is used by the Chinese natives. The kids have a great time in this combination sees-saw go-cart. The Chinese papa evidently believes in raising a family on a small scale. A couple of U. S. sailors are amused at this well-balanced group.

3. Where Britain's giant transatlantic passenger dirigible will be moored.—Photo shows the nearly completed mooring mast at St. Hubert Airdome, Montreal, which will be used as the Canadian terminus of the British Empire Airship Lines. It is a

new type mast and is 210 feet high and 73 feet across the base. Its first use will be for the mooring of the R-100, Britain's giant passenger dirigible which in the spring will make its first regular trans-Atlantic crossing.

4. A new tear gas pistol which can penetrate keyholes and shoot around a corner and blind its victim temporarily and yet cause no permanent injury is a recent development of the National Association for Chemical Defense. Lieut. Col. H. Edmund Bullis, of Washington, executive secretary of the Association, is showing the method of loading the weapon.

5. The humble birthplace of Herbert Hoover at West Branch, Iowa. Since June 15,000 people from nearly every state in the Union and other parts of

the world have paid a visit. As a result, the town of West Branch is elated over the \$100,000 or so which tourists have spent. Also, every house in town has put on a new coat of paint and a new highway has been built.

6. An exhibit showing the four principal species of wild sheep of North America has just been opened to the public in George M. Pullman hall at Field Museum, Chicago. The specimens include one of Dall's sheep, or the white Alaska sheep, presented to the museum by William J. Morden of Chicago; one of Stone's sheep, commonly called black sheep, presented by Boardman Conover; one of the Canada or bighorn sheep, and one of California sheep. The group constitutes part of the serial collection representing most of the principal types of American mammals.

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Farm & Dairy By L. W. LIGHTY

INQUIRIES are frequent relative to strong butter and surely not too much can be said about the matter if it is said effectively and butter makers act on it. A recent inquirer assures me they are cleanly and the place where the milk and cream is handled and held is sanitary but the trouble is persistent and his wife, who makes the butter, is discouraged.



For nigh two score years I roamed up and down the land and many thousands of samples of butter did I come across and just lots of them I wished had stayed far out of my way. Some were white, some reddish-yellow and some streaked and spotted like the mulley cow of old. Some butter was salted so light it was lardy and some was salted so heavy it was bitter with salt. Some had flavors of onions, cabbage, cow stables and dishrags. Some had cow hair in it and other foreign things to prove it was not oleo I presumed. But also in a great many cases places and on private tables I found most excellent butter, proving to me that it was not harder to make a good article than a poor one.

More often when butter had faults it was strong or rancid, indicating that that is one of the two common troubles. I have not the least doubt that much of the strong butter was very good when fresh and had it been eaten during the first two weeks of its existence no one had found fault with it, but the longer it lasted the worse it got.

In practice we find it practical and profitable to incorporate with the butter considerable moisture and such butter when eaten fresh may be very excellent, but if it is kept too long it deteriorates rapidly. Hence if you make butter that you are reasonably sure will be eaten in the next two weeks it is all right to put the limit of moisture in it. But if the butter is not likely to be consumed for a month or two or more it is bad business all around. The surplus moisture does not cause rancidity directly, but it surely is contributory to that trouble if it is abundant. Besides it may cause a number of other faults. But always the buttermilk should be removed as close as possible.

The Cause of Rancidity

There is a very small quantity of volatile fat in the butter and the theory is that the work of certain kinds of organisms develops the flavor and aroma we so much desire. On the other hand if another set of organisms gets the upper hand they will develop

rancidity and other faults. Those who have made the most careful investigations assure us that if we have good sweet cream and ripen it with a good starter, called a pure culture starter, the small number of unfavorable organisms are in a degree put out of commission and if the rest of the conditions are favorable the butter will be good and stay good for any reasonable time. In practice all this works out so frequently in a favorable manner that we believe the theory is correct.

It is not a new story, I admit, but it is mighty important. The milk must be good, made so by correct feeding and sanitation. The cream must be well cared for and be kept at a low temperature to keep it sweet and should be held not over three days for churning. Batches of cream must not be mixed until cold. Use a standard commercial

starter for ripening and ripen at a reasonably high temperature, ranging near 76 degrees. Chill the cream and then bring it to churning temperature and churn to granules the size of half a grain of wheat. Wash the buttermilk out and be sure the water is pure and will not contaminate the butter. Salt as you or your trade likes it. Work light for immediate use but very thorough if it is to be kept awhile. Last, pack away from the air and the light and keep in a cool temperature.

You must know that butter melts at the temperature that brings heat prostrations in the summer, 95 to 97 degrees, and when butter comes anywhere near the melting point it becomes greasy and then it is goodby good butter. A lot of good butter is spoiled by keeping it in the open air in a warm place when it could easily be kept in the dark, cool place. From long experience I wish to say it is easier and pleasanter to make good butter than bad.

Pros and Cons of Fall Plowing

THIS is an old question but an important and an unsettled one. There are soils where fall plowing is not advisable. Fine clay lacking in organic matter runs together and in a degree puddles and becomes so compact that it can not be worked up in the spring with ordinary implements. There are sections where we have trouble with Canada blue grass and quack grass. These establish their underground stems during the winter and only by reworking in the spring can we keep them under control. A steep hillside where the soil is devoid of organic matter also suffers much erosion if fall plowed.

But fall plowing has many advantages in most soils. Possibly the most important advantage is the relief from the crowding of the spring work. Nearly always we have excessive rains in the spring and when the rush of work becomes great we are tempted to plow the ground too wet and that means trouble all summer. In some seasons I found the days gained by fall plowing made all the difference between a good crop or a very ordinary one.

In many soils the freezing and thawing of the broken ground is advantageous in pulverizing it and also in killing many insect pests that we cannot destroy otherwise. Some weeds, garlic for example, are also decimated by fall plowing. But to get the best results from fall plowing we need have a good sod to turn in. The first great advantage is it prevents erosion. The mat of roots holds the soil quite intact. Then the organic matter of the sod starts to decay before we plant the crop and we realize on part of the fertilizer value in the spring crop. This crop is most generally corn and that needs just this particular plant food and

Scrub Dairy Notes

AND behold, a man had cows. And horns did the cows have, some long, some short and some in a manner crumpled. And the horns were pointed and set at an angle for plowing.

And certain elderly Susies of the herd were much skilled in harpooning. And spying modest heifers in the office the old aunts had at them to spit them wide open. And the beasts of the herd



were scarred and continually bleeding and scabby. And confusion and battle waged in the cow yard steadfastly.

And seeing the turmoil and torture, and viewing the heifers as they sped over the straw stack, and perceiving that horns did the mischief, the man drew himself together and quailed as follows: "Begone will the horns be! I will cut off the horns and have the bleeding all done on one Tuesday."

And it was done as it was spoken. And the horns were dismantled and the blood spilled on Tuesday. Thereupon the aged Susies became gentle and the heifers sassed them in safety. And the dribble of milk became as a stream in wet weather. And the pay check

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Wholesale Prices. 1,000
choice, large, black
Michigan Delaine Ewes 1 to 4 years old.
ASKOED, S. CHAPMAN & SONS

Butchering Time

Good Pork Sausage

SAW in your paper of Nov. 3 a request for good pork sausage. Am enclosing mine which I have used for years.

Cut meat in a fine sausage cutter. To 40 pounds of meat add one pound of salt, three ounces of ground black pepper, one-fourth pint of sage, one tablespoonful of ginger. Mix thoroughly together and pack in pans or make bags and fill. Is nice packed in jars. Smooth down well and cover with hot melted lard.

I weigh the salt and sage and get the pepper ready, have the meat in a very large pan, mix by hand, but not put all the seasoning in at once, then fry a little and test.

Mrs. Eliza G. Conner.

A Satisfactory Recipe

I have been using the following recipe for curing fresh pork side meat, and am desirous of knowing if the same can be used successfully with small hams and shoulders:

Four gallons water, eight pounds salt, three pounds brown sugar, two ounces black pepper, one ounce saltpeter. Boil the above together for five minutes and let get cold. Then cut sides in strips six inches wide and pack in jar or tub edgewise as close as possible, then pour sufficient amount of the above brine to cover meat completely, place on weight to keep meat under brine and leave five weeks. Hang up (can be smoked with hickory wood or corn-cobs) until well dry, then wrap with paper and cloth and hang up most anywhere. Riley Cooper.

THE above recipe is satisfactory for curing hams and shoulders. In fact, this is about the same recipe that is recommended by the Pennsylvania State College. With this cure it is recommended that about one week be allowed for each two and one-half pounds of hams or shoulders. In other words, a ten-pound ham would require four or five weeks for proper cure. F. L. Bentley.

To Cure Hams

S. A. B. asks how to cure hams. Place hams on a clean, firm board or table, skin side down. For 100 pounds of meat take five pounds of salt (good table salt), three large tablespoonfuls brown sugar, three ounces saltpeter.

In a large dish pan of agate or aluminum mix salt, sugar and saltpeter together for about five minutes. Having this mixed thoroughly rub it on the hams, both sides, but most on the flesh side and along edges rub it in well. Try to get it all on, but if any should be left over rub it on a few days later. I always see that the butt ends are well salted and put a generous amount of pepper in to keep flies out in summer.

I let this lie for about four weeks till I see the salt will not dissolve any more, and then I rub off all excess salt with a clean rag or brush. Let it hang a day or so to dry off.



Young Farmers in Sheep-Judging Contest at Pennsylvania State College

Ham and Sausage

As requested by Mrs. H. S. in November 3rd issue of Pennsylvania Farmer for good home-made recipe for sausage, I am passing on one of my best ones:

Take 15 pounds of meat, one cupful salt, three tablespoonfuls pepper, one tablespoonful brown sugar. Season before grinding. In addition to this you can add spices if desired, but I do not like them. E. C.

My Hog Loading Chute

FOR the last ten years I have been loading our hogs by means of make-shift, cobbled-up chutes. Every time I sold a bunch I resolved that I would build a real hog loader before the next bunch was ready, but somehow the job was always put off. Last spring, however, I built a chute that is a winner.

An old worn-out hay rake was occupying a place of honor in the scrap pile and I conceived the idea of building the chute on wheels so that it might be moved conveniently. The axle is V-shaped and the spindles are bolted to the ends. I took off one spindle and cut off the axle to a length that would just fit inside the wagon wheels and bed. New holes were bored for the spindle and a two-by-four was bolted to the axle, using the holes where the teeth had been attached. This two-by-four acted as a sill and the floor was nailed to it.

The wheels were placed far enough ahead so that the top end of the chute was level with an ordinary wagon bed. If a low wagon is used the rake wheels will have to be dug into the ground to make the chute correspond with the wagon bed.

The handiest part of this loader is the ease with which it may be moved about. Two men can wheel it on all short moves. If it is to be moved a long distance, it may be turned around and the lower end fastened to a wagon. It is so handy that the neighbors will no doubt be borrowing it soon. J. N.

Seedy Pork

A SPECIAL study of the cause, and if possible, means of preventing seed cuts in pork is to be made by geneticists at the University of Wisconsin. This is a source of considerable economic loss in the meat industry. As a result the officials of the Institute of American Meat Packers have made available a sum of money to the University of Wisconsin for this investigation. The board of regents has appointed J. S. Park to make the study.

SWINE

Normandy Farm Berkshire. Quality proven in the leading shows for years. Both grand champions New York State and other fairs, 1921. Entire herd show quality. Young sows, bred, and service boars. Prices reasonable, must please or all expenses refunded. Ray C. Norman, Street, Md.

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LARGE BERKSHIRES.—Service Boars, Gilts Bred and unbred. Pigs unrelated. The very best. GEO. W. DOZER, South Zanesville, Ohio

REGISTERED BERKSHIRES
Superior Breeding Stock. Pigs, Gilts, Wolf Creek Farm, R. 2, Slippery Rock, Pa.

PIGS Fine, Splendid, Typy, Thrifty Berkshire Sows, 6 mos. old, registered. W. F. McFARLANE, Cumas, Pa.

Chester Whites Six months boars and gilts. Good sows. B. C. DOTTERER, Mill Hall, Pa.

Chester White Pigs Properly mated, for breeding purposes. R. L. MUNCE, Canonsburg, Pa.

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CHESTER WHITES.—Special prices on service boars, gilts, sows or bred. Pedigree free. ARTHUR D. EBERLY, R. 3, Navarre, Ohio

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Choice spring boars and gilts, pigs all ages. BOYD HAMMAN, Shiloh, Ohio

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BIG TYPE O. I. C. PIGS.—10 wks. old, \$10.00. Bred gilts, \$40.00. Chimeras, immature, \$25.00. Registration, R. C. Krantz, R. 3, Dover, Ohio

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HAMPSHIRE HOGS.—All ages; boars, bred gilts, pigs not akin. Registered free. J. A. HANSEW, R. 4, Shippensburg, Pa.

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CATTLE

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Hereford Cattle—Poland-Chinas—Hog Farm—Trout Horses. THE SAINT AMOUSE COMPANY, Martinsburg, Pa.

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REGISTERED HEREFORD CATTLE.—Bred from cow, heifers and bull calves for sale. A high class herd of Woodford breeding.

An investment of 28c reduced cost of pork production \$1.31 per cwt.

THESE are the pigs used in this test. Photographed at 100 pounds.

From 50 to 100 pounds they got no Tonic.

From 100 to 200 pounds they got Tonic.

Throughout the test they had all the ear corn they would eat, and slop, consisting of 8 parts middlings, 1 part tankage, 1 part oil meal, and water.

This experiment was conducted with these five pigs to determine the amount of feed required for 100 lbs. gain when fed both with and without Dr. Hess Improved Stock Tonic. WITHOUT TONIC. From 50 lbs. to 100 lbs.

These pigs, without Tonic, required 411 lbs. of feed to make 100 lbs. gain. They gained 1.1 lbs. per day.

WITH TONIC. From 100 lbs. to 200 lbs.

These same pigs, with Tonic, required only 386 lbs. of feed to make 100 lbs. gain, and they gained 1.8 lbs. per day.

The remarkable thing about this test is that it required less feed to put on the second 100 pounds, with Tonic, than it did the first 100 lbs. without Tonic.



Shoots at 100 lbs.

Note: Profs. Henry and Morrison ("Feeds and Feeding—Page 599") show that in 500 feeding trials made by experiment farms throughout the country, pigs from 100 to 200 pounds required 59 lbs. more feed to reach 100 pounds gain than from 50 lbs. to 100 lbs. Average time required 87 days. Average gain 1.18 lbs. per pig per day.

While the hogs in this test consumed 73 pounds less feed from 100 to 200 pounds, each pig gained over one-half pound more per day than in the 500 feeding trials.

It required only 56 days for these pigs to gain from 100 lbs. to 200 lbs., or 31 days less than the average required in the 500 feeding trials.

Your hogs may be wormy and unthrifty, or you may feel that they are making satisfactory gains. Regardless of their present condition, they will make greater and cheaper gains if given Dr. Hess Improved Stock Tonic with their feed.

This Tonic is not a feed. It will not take the place of feed, and no feed will take the place of Dr. Hess Improved Stock Tonic.

No salt or additional minerals are required when Dr. Hess Improved Stock Tonic is fed.

Dr. Hess Improved Stock Tonic—Increased gain over 1/2 pound per pig per day. Saved 73 lbs. of feed or \$1.31 per 100 lbs. gain. Saved 31 days in time.

The Tonic cost only 28c per pig.



Same shoots at 200 lbs.

Dr. Hess Improved Stock Tonic

Appetizer, Worm Expeller and Mineral Balance—
all combined in one product

Adopt our plan of continuous feeding of this Tonic for at least 60 days and see what it means to you in increased thrift and gains. It will require 2 1/2 lbs. of Tonic for 60 days and cost but 25c for each 100-lb. shoot. See your local Dr. Hess dealer today.

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Potatoes.—L. 1., 150-lb. sack, \$1.00@1.25.
Maine, \$1.00@1.25.

An American Editor Abroad

(Continued from page 16)

about it, but think what would happen in our country if any municipality attempted to levy a tax or tariff at the city boundary.

Our first stop was at Barbizon, at the home and studio of Jean Francois Millet, the painter of The Angelus, The Gleaners, the Man with the Hoe and other famous pictures. He was a farm lad and worker and painted what he knew. Maybe that is the reason his pictures are now almost priceless. At any rate I observe that artists who portray and authors who write what they know are the ones who earn fame. Millet's home is a very modest one and his combined studio and bedroom would not satisfy most house-painters of the present day.

From Barbizon we drove on to Fontainebleau, through a part of the great forest to the Palace. It is worth seeing, if one is interested in kings and emperors, and is wisely preserved. But why attempt to describe a palace with its treasures of furniture and art? The kings have departed, we hope forever, and a part of their old domain is devoted now to a school of music, many if not most of the patrons of which are Americans.

The lake before or behind the Palace is full of carp, has been so for centuries, and one of the diversions of the visitor is feeding these voracious fish. The feeding is done largely by Americans, as the French are not accustomed to toss good bread to a lot of worthless fish. I got some crackers and had the pleasure of seeing the fish fight for them. One visitor tossed in a whole loaf of hard French bread and it created quite a commotion in the lake. The greedy carp swam over each other to get at it, piled up around it and even butted it out of the water with their noses, but they gradually got hold of it and ate it up.

French Highways

French highways are delightful in summer time. There are three classes of roads in France—main highways or routes nationales; secondary roads or routes departementales; and local roads or routes vicinales. The first are maintained by national funds, the others by departmental and local funds. The main and departmental roads are numbered and signs indicating curves, directions and distances are usual if not universal. But the charm of a French highway is its trees. All but a few comparatively new roads are shaded by a row of trees on either side and for mile after mile we travel in the shade and look out on the sunny landscape. The trees are all carefully trimmed so they don't obscure the view of the country. All the limbs and twigs are saved for fuel, usually hauled with a strip of bark or a limber twig into neat bundles. I noticed that the trees were of different varieties in different parts of the country—chus, horse-chestnuts, sycamores, maples, pines and a few in the south so-called English walnuts which are really French walnuts, for Grenoble is the center of the walnut industry in Europe.

We drove down the valley of the Yonne, southeast from Paris, to Sens, and there we stopped for a view of the ancient cathedral. Sens is an old Roman town and was old when the Romans came to it a couple of thousand years ago, the capital of the Celtic tribe of Senones. It is an army post now as well as a religious center, and many of the young men who are serving their term of 18 months in the army are quartered there. Some of these had just heard from home, for they were eating in the restaurant and having a good time. They eat away from barracks only when they hear from home, as their magnificent pay of 25 centimes (or one cent) a day doesn't allow them to waller in luxuries.

The cathedral is an old one, the mother of the Canterbury Cathedral, England. But to me the most impressive thing about it is a kneeling statue of Joan of Arc, with an inscription which declares that on that very spot she knelt and worshipped on a certain day in 1429. We didn't know anything about this until we saw it, in fact knew nothing about Sens or its cathedral. Somehow I like to blunder on to such things rather than make a special trip to see them. If one makes a special trip he often expects too much and is disappointed, whereas if he accidentally sees anything of historical interest he is not only surprised but highly pleased with his good fortune. At any rate I will not soon forget the little thrill of finding the spot where Joan of Arc knelt nearly five hundred years ago, pausing on her way to Rheims to see her king.

Guernsey Men Meet

THE South Jersey Guernsey Club held their second successful annual banquet at the Johnson Hotel, Salem, N. J., on November 8th. About 185 Guernsey enthusiasts enjoyed the typical South Jersey dinner. Wm. M. Nulton, Jr., field secretary of New Jersey Guernsey breeders' organization and a director of the National Raw Milk Producers' Association, while discussing the milk situation said, "I wish to propose for consideration by the State Board of Agriculture a method of fixing

Adventures of the Brown Family

(Continued from page 23)

I wouldn't prosecute, Hal, because after all their friendship had meant something to you. But before he left, Fernandez called off the suit and Miss Sanchez was left in undisputed possession. A week more and we will have to leave our home."

"You will never have to leave, my dear Father Brown," spoke up the girl Hal had brought home from Mexico. "I never knew of this fortune but I am the true granddaughter of Captain Pettibone. Tomorrow I shall face my false cousin who bears my name and who has tried to defraud me. Hal and the one you call Jack will bring her here."

"God bless you my dear," said Mother Brown feelingly. "You have a kind heart and are far different from this other Isobel. All we ask is fair treatment. And now you are tired and must retire. You must keep the roses in those pretty cheeks," and Mother Brown smiled kindly at the flush on her guest's lovely face.

"There will be a surprise for that young lady, all right," announced Hal grimly. "Wait until she sees the girl she thinks is dead or forgotten. Isobel has a long score to settle with her cousin."

The summons which Jack Miller carried to his ward was a peremptory one and sulkily the Spanish girl accompanied Jack to the House of the Lone Oak. All that Jack knew was that Hal was home again and that the Brown's were ready for a final "show-down." Regal in her carriage, eyes flashing disdainfully, the pseudo heiress swept into the room to shrink back in dismay as the girl whom she had betrayed rose and faced her.

What was said will never be known to the Brown's for Hal could follow but a few words of the rapid Spanish but soon the new-found Isobel turning to Father Brown announced, "My cousin will return at once to Spain and I shall make no trouble for her. After all we are of one blood. She has spent much but still there is much left for all. Even this Juanita whom you speak of, shall be remembered for we are not, too, kinswomen?"

Humbled but still haughty the Spanish Isobel stood aloof until Jack Miller

time limit for grades A and B milk not to exceed 48 hours and 72 hours respectively from time of production to time of delivery to consumer. The certified milk is protected with 30 hours limit and I believe that raw natural milk should be on the same basis. I believe that the most method of paying for milk on the fat differential basis is unfair, as the producer of the higher testing milk is penalized on the 4 cent fat differential which exists with the buyers in some sections of the state."

The speakers of the evening were M. T. Phillips of Pomeroy, Pa., one of the foremost Guernsey breeders of the country, and Hon. John B. Kates of Camden, N. J.

"Turkey Day"

MONMOUTH county, New Jersey, introduced its first "Turkey Day" when over 200 people from all parts of New Jersey met at A. E. Reid's turkey farm near Manalapan on November 9. "Turkey Day" was the result of widespread interest in turkey raising and was brought about through the cooperative efforts of County Agent Ellwood Douglas and the poultry department of the New Jersey Experiment Station and College.

Inter-State Milk

H. L. ALLEBACH, president of the Interstate Milk Producers' Association, announced on November 5 that all November and December deliveries will be paid for on full Class 1 or basic price, the surplus classification being removed. This applies to all shippers delivering in Interstate Milk Producers' Association territory who are operating by cooperative dealers. Arrangements for the selling plan announced in July remain unchanged except for the above mentioned. G. W. H.

fall plowing

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DO IT AGAIN

CULTIVATE THOROUGHLY WITH GOMPER BLADES



REPEAT

entire process two more years. If corn was planted first year, plant soybeans or cowpeas second year.



Destroy

FENCE ROW GARLIC BY SPRAYING WITH WASTE AUTOMOBILE OIL. LATE IN A P. R. I. L.



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SHADE FARM FOR SALE.—Best limestone land, new buildings and all modern conveniences. Best location. Time payments. John Stock, Harrisburg, Pa.

PENNSYLVANIA FARM.—175-acre limestone farm of J. P. Smith helps, Elders Ridge, Indiana county, Pennsylvania. Well improved, good investment. E. B. Smith, R. 1, Box 34, Avonmore, Pa.

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Veterinary

By Dr. H. H. HAVNER

HEIFER IN BAD CONDITION

F.K.—I have a two-year-old heifer that went blind and has got very poor and sore above the hocks and all over. Now she has the sores.

A poisonous plant or a metallic poison like lead (from paint buckets) might have served as the cause. The probability of a metallic poison is more likely in this instance.

AN ABNORMAL CASE

C. E. E.—I have a heifer which is due to freshen in three months and she has been making sack for some time and at present time has quite a bit of milk. At times the milk will run from her teats. I milked her this evening and she gave one and one-fourth gallons. Her udder seems to be fevered quite a bit also.

It is rather unusual for udder development to take place in such a marked way so long before freshening. Could it be possible that the cow aborted and is not now carrying her calf? If such has happened, of course the only option is to continue to milk the cow, but if she is still to freshen I would hesitate to suggest this and in fact under ordinary conditions would advise against it. I would urge a prompt examination by a veterinarian to determine the exact status and would be governed then in procedure according to the findings.

STRETCHED TENDONS

E. L. R.—I have a horse that stands up on his pastern in front foot, the right one. He is seven years old and has been this way about six months.

The flexor tendons at the rear of the leg are over stretched which permits the flattening out of the pastern joint. There is no direct remedy that I know, although a brace is sometimes used with a hope that the tendons will strengthen. Very unfortunately the tendency toward too great a slope of pastern has been inherited and through a heavy pull or hard work the tendons have given away. Better rest the horse for a considerable time on pasture with a hope that weakness will improve.

TROUBLE WITH A HORSE

G. R. L.—My horse has been ailing for about three weeks. He has been swollen across his chest, all the hide can hold. He has been eating well until the last three days, but he can't drink unless he chokes. He has to work hard for his breath. He hasn't been able to lie down or at least hasn't since he began to swell.

This is rather a puzzling case. I would be most suspicious of infection due to such a cause as a nail puncture or splinter, at least it seems to me that there is some point of local infection which accounts for this swelling. Hot water applications would be advisable as well as a not too severe stimulating massage in the form of a liniment. If a soft spot develops in

MISCELLANEOUS

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OUR BELGIANS were consistent winners at the State Fairs this fall. For sale, a four and two-year-old mare in foal to our Champion Stallion. Also a roan and sorrel filly. Write for prices or better come and see. Hylmide Farm, Beaver, Pa.

FOR SALE.—Nineteen hundred pound three-year-old registered black Percheron mare of quality and pedigree breeding. Write for price or arrange for visit. Hylmide Farm, Beaver, Pa.

BEGLIAN HORSES.—Stallions and mares for sale. If your community needs a good stallion, write me. Oliver Jones, Jamestown, Pa.

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WANTED.—Hay, Straw, Potatoes, Apples, Cabbages, Grain, Buckwheat, Corn, etc. For highest market prices. The Hamilton Co., New Castle, Pa.

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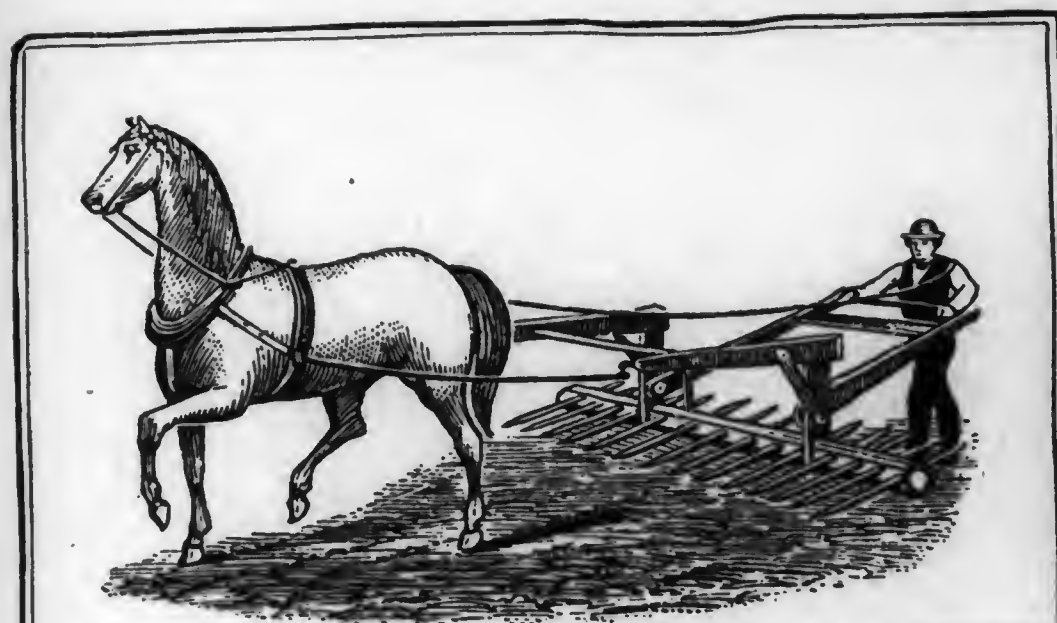
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Kitchen Stoves Have Changed Too

BACK in 1865 this wooden rake was one of the finest new pieces of farm equipment. Times have changed. Fine steel, malleable iron, the tractor, grain binder, corn picker, fast modern machinery, have made farming different business. No farmer could hope to be successful if he used today the equipment of half a century ago. What of the equipment that mother has in the house? Is it modern or antique?

THE kitchen stove is one of the most used pieces of equipment on the farm. Mother works over it one-third of her waking hours. The corn planter is oiled up and used a few days a year. The grain binder runs for a week and is put away, but the kitchen stove, mother's chief piece of working equipment, is on the job every day, often all day, Sundays included.

Stoves have been improved, just like the hay rake and other equipment. Heat from the coal or wood is utilized to better advantage. Ovens heat more quickly and can be regulated accurately, whether for angel-food cake or pumpkin pie. With the new modern stove, mother would show some tricks about cooking that the family never heard of before.

Surely, with the vital task of feeding the family, she should have good equipment to work with.

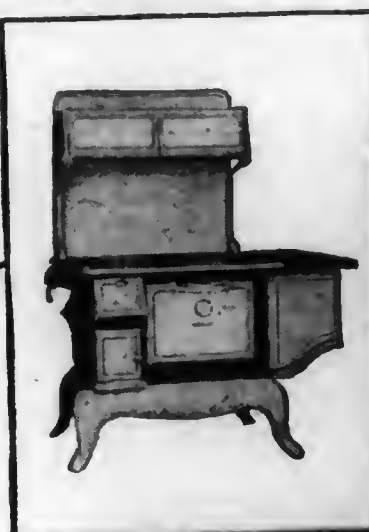
Modern cook stoves are beautiful. The glistening finish, in white or charming color, adds cheerfulness to the room. Not only is the stove good to look at, but easy to keep clean. Mother will love it.

Plan to invest in a new kitchen stove. Set it up, and as the family gathers around, hand the match to mother and let her light the first fire. Notice how quickly the fuel takes hold, how well the dampers work, how accurately the doors fit. For months and years it will give willing service and you will say the money was well invested.

MONEY you put into good equipment for the home is truly invested in life and happiness. The years pass, never to return. How much of life can be saved for other things by providing mother with as modern machinery in the kitchen as is required for work in the fields!

The old stove has been in service a long time. You can keep on using it for several years longer but at what cost? How long since you have examined a modern kitchen stove?

Surprising advancement has been made by manufacturers in the last few years. Take time to learn about the improvements. The new cook stove will pay dividends every day. It is a "sure thing" investment, if you buy from a concern that builds for quality and service, as do all those who advertise in this publication.



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NESHAMINY GARDENS

By R. P. KESTER

IN LOOKING over a fertilizer prospectus giving the formulas for 1929 mixtures I find such analyses as 8-16-16, 6-15-9, 6-18-6, 4-20-6, etc. In the thirteen formulas given, the lowest contains twenty pounds of plant food per 100 pounds and the highest forty pounds. How different these figures are from those usually seen in fertilizer literature a few years ago! I have by me a booklet put out by one of the big fertilizer firms in 1912. Each brand is designated for a particular crop, such as corn, potatoes, wheat, buckwheat, etc., and the analyses run, 0-10-2, 1-8-1, 1-8-5 and 2-6-4.

Thanks to the educational work of farm papers, county agents, farmers' institutes and other agencies there has been a great advance in the general knowledge about fertilizers, their functions and their contents. In the earlier days a farmer would ask simply for some "phosphate for wheat," and the agent, who usually knew no more than the farmer about the subject, would load him up with what was designated, "wheat fertilizer." Sometimes the request was made by naming the price per ton the farmer was willing to pay for "phosphate." Now the average farmer knows at least the fundamentals of fertilizing, while the best farmers can talk intelligently about ingredients and percentages.

It is not so long ago that the amount of fertilizer applied per acre rarely exceeded two hundred pounds. Is it any wonder that many farmers were disappointed in the results attained when the amount was so small, the percentage so low, and the right elements probably lacking? There is no question in my mind but that successful farming in the future will depend more on the right use of fertilizers than on the passage of "relief" measures.

Of course, there is yet much to learn, and for that reason the public in general and farmers in particular should back movements tending to increase the efficiency of agricultural colleges and experiment stations. That they do not fully appreciate the value of these institutions is shown by the apparent defeat of the State College bond amendment at the recent election. And since I referred to this amendment, I want to slam farmers a little for being led into defeating the road bond amendment, knowing as I do that the majority of farmers are handicapped by mud roads, and that it will be a long time before they have anything different under the "pay-as-you-go" plan.

A large number of readers have written to know more about the use of paradichlorobenzene (PDB) for the control of peach tree borers. To all

such I would say, write to your experiment station asking for bulletin on the subject. The whole subject is treated fully and clearly. But it is too late now to use it this fall. Read up on the subject this winter, and next May go after the borer by cleaning away the dirt and grass about the tree, cutting out what borers there are, and removing all gum and accumulations. PDB will not get all the borers when they are sealed in by gum and dirt.

"What should I consider in setting a value on a hundred-acre farm?" This question was asked me the other day, and I asked time to think it over. There are some factors which will apply under all circumstances and are worthy of consideration. First, there is the strictly commercial value based on the farm's real and potential producing capacity. This is modified by its location in reference to markets, schools, churches, good roads, etc. Then there is what may be called a romantic value, having reference to its desirability as a home. This is modified by its location also. Is the outlook pleasing? Are the buildings commodious, convenient and homey in appearance? Is the neighborhood a desirable place in which to live? Those who have lived long in a given place usually give these latter factors a higher value than does a stranger. Josh Billings said that a young man could always see ten times more in his girl than anybody else could.

A good many farms have been sacrificed during the last few years, a fact which some former owners are going to realize sooner or later. The craze to make big wages, the longing for quick attainment of luxuries, the desire for short hours and, more than all, the undue emphasis which has been placed on the "plight of the farmer" for the last few years has caused many farmers to sell and get out. Already there are signs of returning sanity in many, and if history repeats itself, as it is said to do, there will be many more people wishing they had not been in such a hurry to get away from "the everlasting drudgery" of the farm.

Again, owing to the addition of thousands of new readers brought in by the combination of the papers, I find it necessary to explain the word Neshaminy. In the valley below "Neshaminy Gardens" runs Neshaminy Creek, a stream of fairly good size and much scenic beauty. It empties into the Delaware river near Bristol. The word is syllabified, Ne-sham-i-ny, with the accent on "sham". However, we try not to have too much sham about our place or the things we do. The region was originally named by the Indians.



Hired help is expensive, but the man who keeps hiring occasionally is at a distinct advantage when he gets into a pinch—he knows where to go, and the laborer is already on a trading basis with the man for whom he has worked.

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IN ENEMY COUNTRY

NEXT week we begin this ten-chapter serial story by James Willard Schultz, member of the Blackfeet tribe, whose tales of Indian life are recognized as the best ever written. This story will be followed by one of a different type. In the course of a year the subscriber to this paper gets wholesome stories that would cost many dollars if he bought them in book form.

A QUALITY SHOW

AS WILL be seen on another page of this issue the International Livestock Exposition will bring together 1,720 cattle, 1,440 hogs and 1,403 sheep, not counting animals in carlot classes. Entries of grain and hay are the largest on record, and a wool show is a new feature. Everybody knows, after more than a quarter of a century's experience, the futility of taking mediocre material to the International, so the quality of the entries for the supreme event of the meat industry is higher than at any other show. The Exposition opens at Chicago December 1 and closes a week later.

PROSPECTS FOR FEEDERS

THE November official estimates of cattle and lamb feeding don't give much information but that is nobody's fault. Definite information about the numbers of livestock on feed is mighty hard to get. The shipments of stocker and feeder cattle to Corn Belt states during the four months ending with October were liberal, the markets contributing 236,000 or 25 per cent more than in the same period last year. Direct shipments from ranges to feed-lots are not estimated but probably were as large as last year, if not larger. Eastern feeding is not mentioned either, but it will probably be as extensive as last year. The prices of feeder cattle are high, and feeders cannot expect to do as well as last year. Whether they make or lose money depends much on the country's demand for beef, and there is not a vast amount of optimism over that.

The official estimate indicates fewer lambs on feed than last year up to November 1st, with the possibility that shipments this month will bring the total up to that of 1927. Feeders are apparently balking at high prices for their lambs, and they would have saved money if they had done it several years ago. Here again the prospect for the feeder depends largely on an unknown quantity, the demand for meat. How much will cheap pork affect the consumption of other meats? If we could answer that question we would know more about cattle and lamb prospects.

MUSSEL SHOALS AGAIN

ONE of the "whereases" preceding the resolutions about Mussel Shoals adopted by the National Fertilizer Association last week reads, "Nitrates can now be produced more economically by other processes than the cyanamid process, and by the use of coal as less costly than by the use of hydro-electric

power." Readers may recall that two years ago we suggested that science would solve the problem of Mussel Shoals while Congress was talking about it. Science has solved it so far as the manufacture of fertilizer is involved, and the Fertilizer Association submits a solution for the remainder. It is the sale or lease, with proper reservations, of that part suitable for electric power production; the continuation of that part adapted to research or experimental work, under the Bureau of Chemistry and Soils, and the maintenance in stand-by condition of the cyanamid plant for a few years under the War Department, with ultimate sale in prospect. The Fertilizer Association's plan provides also for a fund, derived from the sale of power, to conduct research in the use of fertilizers, this fund to be distributed among the states according to their cultivated area.

We are for this or some plan that will keep our government out of the fertilizer business, the power business and all other business that is not a proper function of government.

THE SACRED DOE

THE short-sighted sportsmen who are toposing the Pennsylvania Game Commission's effort to reduce the deer herd to the size of its pasture, and to bring into proper balance the sexes, should be warned that if successful in their injunctions or other obstructive measures they may accomplish precisely what they do not want. They want deer. The way to have them is to have enough and not too many. Too many deer are a nuisance not only to themselves but to agriculture, and they will surely bring about reprisals which may go entirely too far. But if sportsmen themselves are unreasonable they can't blame others for going to extremes.

Sportsmen want hunting. Common sense and even elementary arithmetic should show them that they will have more hunting with a smaller deer herd which is productive because the sexes are balanced than with a large herd which is not merely unproductive but is destructive of its own subsistence and the property of farmers. What kind of a return on a million breeding animals is the 15,000 bucks killed in the best season on record? Half the does, if productive, would yield several times such a return and not destroy their own means of living or destroy the property of farmers.

The farmers of Pennsylvania are supporting the Board of Game Commissioners, which is faithfully keeping or attempting to keep its promise to reduce the deer herd and abate deer damage. If the sportsmen are wise they will do likewise.

THE NATIONAL GRANGE

AS THIS is put on the press the National Grange is in session at Washington, where it was organized sixty-two years ago. During that time it has accomplished much for agriculture. Otherwise it could not have survived, for no organization can endure without service. The movements in which the Grange has had a part, and frequently a vital part, need not be enumerated here. They

are well known to all farmers who read. At the present time the Grange stands for several policies about which there is little difference of opinion among farmers. All of us believe in such things as research, equality in legislation, tax adjustment, improved marketing systems, national and rational land policy, improved waterways, reasonable control of such resources as water power, law enforcement and world peace. But not all of us can subscribe to such fallacies as the export debenture plan, which the Grange has advocated and continues to advocate regardless of the fact that there is no probability or even possibility of its enactment. No matter about that, however. We honor the Grange for what it has done for the agriculture of America. We hope for its continued strength and future leadership which will steer it away from the rocks on which many other organizations have met difficulty and even disaster.

NATIONAL THANKSGIVING

THE Pilgrims who established Thanksgiving Day were thankful for enough to eat. They had suffered by lack of food and knew by experience the difference between famine and abundance. This year the country which then supported a few colonists and Indians has harvested around six billion bushels of grains and over four hundred and fifty million bushels of potatoes, to say nothing of its vast harvests of other foods, of clothing and of fuel. Those who celebrated the first Thanksgiving lived in rude cabins and in every respect their standard of living was far below that of their successors of today. They had no public schools, but their country now has about thirty-five million children in schools and over a million young folks in colleges. Last year alone its people spent around three billion dollars for new homes while investing in over a million bath tubs, two million radio sets and enough gasoline to run twenty-three million automobiles and trucks. These same people have over thirty-five billion dollars in savings institutions and carry about seventy billion dollars worth of life insurance. But we need go no further, for this is not to cite statistics but to present a contrast which should afford every American a sound basis for Thanksgiving.

There is another side, but why worry about it? Material progress is evident but it is not alone. The world is getting better, not worse. Men's minds are becoming broader—the Pilgrims would not need to go to a new world for freedom of thought today. The standard of public and business morals is ascending, not on the decline as some pessimists assert. As Americans, whether we farm or work in shops or at desks, we may be thankful for the progress our country has made and for the promise it holds. Those who do not realize these blessings should visit some backward land where freedom of thought and action are not yet possible and where education has not yet reached the people. Then they would realize as we do before why an American citizen should celebrate Thanksgiving not merely one day a year but every day.

New Methods of Pasture Management in England

Investigations of Grassland to Aid Livestock Producers

By J. G. LIPMAN

A LONG the investigations now being carried on in the British Isles by agricultural colleges and experiment stations, the study of grasslands is undoubtedly of wide interest and importance. This study is dealing in a definite way with certain factors that are of interest to livestock producers all over the world. The results already obtained should benefit the dairymen in North America, Australia and Africa perhaps as much as they will benefit the dairymen in western Europe. The same methods of livestock farmers interested primarily in beef cattle, sheep or swine. For this reason, an attempt will be made in this article to outline only the principal features of grassland management and fertilization studies as they are now being carried on in the British Isles.

One of the problems under investigation has to do with so-called carrying capacity. It has long been known that some pastures are many times as efficient as others located on about the same type of soil and under about the same climatic conditions. The degree of difference is often greater when different varieties of soils and climates are considered. Thus we find pastures that can carry during the entire grazing season two or more animal units per acre. On the other hand, we find the arid or semi-arid range lands which maintain only one animal unit on 20 to 50 acres. Under the worst conditions of semi-desert range as much as 75 or 100 acres of land will be required to maintain one animal unit.

Factors Studied

Starting with the assumption that the carrying capacity of pasture land may be increased where water is not the limiting factor, the studies now in progress in western Europe are making a critical analysis of all the important factors that influence carrying capacity. These factors include soil texture and structure, the type of herbage, the density of the animal population per given area, the frequency of grazing of any given area, the use of lime and fertilizers and the use of harrows, disks and other tools and implements. Since different soils vary in their natural fertility they must also vary in their ability to produce animal food. Some grasses are more nutritious than others. Some can stand close grazing much better than others. Some are adapted to acid, others to neutral or alkaline soil conditions.

On-going investigations are now being carried on by Prof. Stapledon in Wales on the improvement of pasture grasses by breeding and selection. Others like Prof. Wood of the University of Cambridge are studying the influence of frequent cutting or grazing on the composition and yield of forage. He has shown that young grass does not differ very much in composition from middlings or similar concentrated feeds. In fact, he has demonstrated by feeding experiments with sheep that young grass properly cured and fed as hay will give as good returns as other concentrated feeds. He, therefore, argues that grazing animals may have an unbalanced diet in that they get a disproportionate amount of concentrates and not enough carbohydrates.

Protein Content

Other investigations, particularly those carried out under the direction of Nitram Limited, have paid particular attention to the influence of sulphate of ammonia and of nitro-chalk (a mixture of nitrate of ammonia and carbonate of lime) on the protein content as well as the yield of forage plants. They have shown that by proper fertilization the protein content of pasture grass may be very materially increased.

Carrying on their studies, the large number of experiments employed by that company have emphasized the so-called "rotational" system. This provides the division of a given field into six or eight equal areas. These are fenced in and are grazed with drinking water. Fresh cows in sufficient number are turned into a pasture lot and kept there about four or five days. They are then sent to the next lot and so-called "followers," consisting usually of dry cows, young stock and sheep, are allowed to graze on the lot which the first group has just vacated. At the end of about a week the animals, shifted from pasture lot to pasture lot, are ready to return to the first pasture field. Fertilizers used consist of either sulphate of

ammonia or nitro-chalk or mixtures of both. The quantities used do not usually exceed 300 pounds per acre of sulphate of ammonia or the equivalent amount of nitro-chalk. A basic application of lime, phosphate and potash is made in the spring, the nitrogen is applied in about two or three dressings during the grazing season. After the animals vacate the pasture lot the latter is gone over with a harrow to distribute the droppings and where the soil is heavy and the sod thick, a disk is often used to improve the ventilation of the soil.

Numerous experiments which are designated as "trials" are in progress not only in England but also in Scotland, Ireland and Wales. Some of these trials are in their second year and show a very material increase in carrying capacity. Of the thirty-odd pasture demonstrations or trials visited by the writer, a very considerable proportion are carrying an equivalent of two animal units per acre throughout the entire grazing season. It has been shown, among



Alfalfa seeded February 19th; photo taken August 17th following, shows second crop knee high. A third crop matured the first year and four crops the second year. Seed bed prepared by Jack Frost.

other things, that the new system of pasture management makes possible earlier grazing in the spring and later in the fall. In some instances, animals are turned out on the pasture early in April and turned off after the first of November.

Dairy cows producing 30 pounds of milk or less per day are not fed any concentrates during the pasture season. It is only the heavy milkers that receive such supplementary feeding of concentrates. In that case, corn meal or other carbohydrate feeds are preferred to protein feeds since, as was already noted, grass-cut or grazed when it is short will contain on a dry basis 20 to 25 per cent of digestible protein.

The new methods and practices of pasture management have raised questions which are being investigated in various places in England. Provision must be made for an adequate supply of winter forage, particularly since the number of animal units carried per acre has increased. Hence, much thought is now being given to the making of silage out of crops that will grow readily in the British Isles. Finally, it might be noted that the better methods of grassland management are already reacting not only on livestock farming but also on the production of tilled crops in England and other European countries.

Is There Such a Plant?

IF THERE were a kind of corn that would live for five or six years from one planting, there would be a great demand for this corn, and it would soon be grown on almost every corn farm in the United States. Farmers would say, "Why, we have to plant it only once, for five or six years!" And they would almost "fall over themselves" trying to get it. We have no such a corn plant, but we do have

another plant that does this very thing, only on a much larger scale. It makes four crops a year, in Indiana, and it lasts at least fifteen or twenty years from one seeding; and yet farmers do not get excited about it, because it is not corn, I guess. This "other plant" is a great drought resister. Its roots penetrate hard pan, and, in porous soil, they have been found at a depth of 129 feet; but farmers like to plow and raise corn, you know, and they do it. They plow the land and prepare a seed bed each year. Then they cultivate the ground each week, destroying the surface corn roots, thus leaving nothing to enrich the soil or to keep it from washing away. Good authority says, "About one billion tons of our best corn and cotton soil starts enroute to the sea each year." Part of it doesn't reach its goal of course, but it does much worse; it lodges in the river beds, clogging them up, until high waters burst the dikes and flood the country, as they did so recently. Why not use this substitute for corn more, to keep our land at home, rather than send it down to the ocean?

This "other plant," the Indiana Agricultural Experiment Station says, makes four to six tons of dry feed per acre annually, worth, in feeding value, as much as wheat bran, pound for pound. It prevents the land from washing, and it makes the soil rich enough to grow 100 bushels of corn per acre. Good authority says this plant may pay five per cent interest on land worth \$2,200 an acre.

The Illinois Experiment Station says a four-ton acre of the plant has 400 pounds more digestible nutrients in it than has a twelve-ton acre of corn silage! Which is lighter to handle, and which is better for the land and livestock?

The Tale of Two Pigs

The Kansas Experiment Station put two pigs of the same litter into separate dry lots at weaning time. One was fed corn alone; the other, corn and dry forage of this wonderful plant. At slaughtering time one netted 60 pounds, the other 250 pounds. Guess which was which, and guess the name of this plant that can be grown all over the United States, and in most cases for less than one dollar per acre? What is it? See photo, second crop, first year of seeding, with plenty of time for a third crop the first year. This little field adjoins a limestone pike in Unionville, Monroe county, Ind., and lime dust carried by the wind caused this success. J. N. Shirley.

Isolation

I THINK that the man who owns the farm on which he was born is to be envied. Surely the soil of the old home can withhold no secrets from that man. A recent news item tells of a farmer sixty years of age who owns the farm on which he was born. This man is different from most farmers. He has never owned an automobile, and he makes only one yearly trip to town. He is, however, a modern farmer and a prominent cattle man. His sheds are filled with up-to-date tools.

We are well aware of the constitutional rights of a man to live his life as he pleases, so long as he remains within the law. And yet there are requirements of good citizenry that can conform only to the local terminology. This man is undoubtedly a good neighbor, but we of the present age consider an able man a unit in community welfare. Staying at home with the radio, the daily paper and the telephone may not isolate the world from him. But it isolates him from his community.

Individual residents of a community, naturally being active components, do not obtain the most from life by denying their services in community benefit and betterment. Neither do they render services which may be of great value in helping the attainment of community betterment. It is hoped that there are not too many farmers like this man. More and more as this modern age progresses, are the rural folks realizing that there is an active part for each in community building, and that their efforts as individuals may determine the progression or retrogression of their community. A good community is an asset to all who live within its influence. We who receive the benefits of the community are helping ourselves when we help others. S. H. Green.

Eastern Farm Comments

By MILES HORST

ON dairy farms having most or all of their acreage in grain and hay crops, spring pasturage offers quite a problem. Particularly is this true on many of the farms in southeastern Pennsylvania. Sweet clover appears to offer a solution to this problem, because it gives early pasture, carries two to four animals per acre and carries them well into the summer when old and new grass fields can be used. Owen Gerhard, a dairy farmer in Montgomery county, tells me that he carried 30 Holstein cows on six acres of sweet clover for ten weeks last spring with very good results. By that time pasture in his grass fields became available.

ALREADY 232 potato growers in Pennsylvania have been reported to have exceeded the 400-bushel per acre yield. Several counties are still to be heard from. Lehigh county reports 44, Potter 35, Chester 21, York 28, Lebanon 16 and Carbon 22.

COUNTY-AGENT THOMPSON of Millin county, Pa., justly feels proud of the accomplishment of three of the boys in his acre potato club. They lead off in the records made in the 400-bushel club in his county. Reuben Uman grew 577 bushels of potatoes on an acre, Robert Shaw 544 bushels, and William Uman 519 bushels.

THE State Department of Agriculture has granted permission for the shipment of exhibition corn to the 1929 Farm Products Show to be held at Harrisburg from counties quarantined because of the corn borer. A form of certificate will be required to accompany the corn. This can be obtained at the local county agent's office.

THE county library system deserves greater support in Pennsylvania. It is true that several counties such as Dauphin, Wyoming, Lancaster and Berks have endorsed such a system. But they have barely made a beginning. The county library is supported by county funds and available to all folks in the county.

Most of our cities and larger towns have their libraries, but people outside of their urban limits do not have access to them. Yet the need and demand in rural communities is just as great as it is in cities. In fact, experience in counties where county library service is available shows that rural people take greater advantage of such service than do city people. The costs of maintaining such county libraries is small compared to the informational and cultural benefits the taxpayers receive from them.

ANNOUNCEMENT that the Lancaster Fair is likely to suspend operations in the future for financial reasons again calls attention to a difficulty a number of our fairs find themselves in. It is true that some of them are a marked success financially. It is also true that many find it difficult to break even from year to year.

To diagnose the troubles of this latter group is not easy, and their management should not be criticized too severely. We cannot help but feel, however, that certain fair associations during the past several years have overemphasized the entertainment and midway features at the expense of agricultural and industrial features. While there was a justifiable reason for this some years ago, amusements have become so general that they no longer attract as they did then.

On the other hand we believe folks will still come out to see outstanding animals both on exhibition and performing as in the case of horses as well as farm products in general. We have our opinion in this regard on the large attendance particularly of farmers at strictly agricultural fairs and shows held in all parts of the state.

We have also witnessed that the most successful county fairs in the state are those featuring strongly the agricultural and industrial exhibits. We believe that the time has come when the primary purpose of county fairs should be to receive full recognition.

EIGHT years ago a small group of dairy farmers in McKean county, Pa., organized the first Ayrshire bull association in the United States. Being forced to start out in a modest way because of limited funds, they pooled their ready cash and purchased two good young Ayrshire bulls to use on their grade herds, then numbering 128 cows. Upon this foundation they began to build better herds. The report at their annual meeting held last week speaks well of their efforts. The association now has six outstanding bulls on use. Instead of 128 grades in association herds, there are now 126 pure-

breeds and 73 grades. Forty bull calves out of association bulls and good cows have been sold to farmers outside of the association. The county is establishing a reputation as a source of good Ayrshires and is obtaining good prices for surplus cattle.

PRELIMINARY estimates of 1928 crop production in Pennsylvania indicate the highest average yield of potatoes as well as total production for all time while other principal field crops, except buckwheat and hay, are running below the five-year average.

The corn crop is estimated at 53,360,000 bushels, 3,195,000 bushels more than last year but 4,400,000 bushels below the average for the past five years. The production for the entire country is above the 1927 total and the five-year average. The average acre yield in Pennsylvania is 40 bushels, 11.7 bushels above the average for the United States.

The production of winter wheat for the state is 17,503,000 bushels, 2,662,000 bushels below the estimated 1927 harvest and 4,292,000 bushels under the five-year average. The total United States production is higher than the 1927 crop and the 1923-1927 average. The acre yield in Pennsylvania this year is slightly below the average for the entire country.

With an estimated production of 34,144,000 bushels this year, the oats crop is 5,456,000 bushels less than the 1927 crop and 3,015,000 bushels below the five-year average.

The buckwheat crop of 4,427,000 bushels is 508,000 bushels below the crop a year ago but slightly above the average for the past five years.

The estimated potato production of 32,630,000 bushels exceeds the highest previous production by 3,098,000 bushels while the average acre yield of 130 bushels tops the highest previous figure by seven bushels. The production for the entire country this year also exceeds greatly the crop a year ago, as well as the average.

The total apple crop for the state is estimated at 8,460,000 bushels, 2,160,000 bushels above the 1927 harvest but 1,391,000 bushels below the average. The peach crop of 1,867,000 bushels is almost twice the 1927 production and one-fifth more than the five-year average. With an estimated production of 22,680 tons, the grape crop is 7,830 tons higher than the crop a year ago and 5,202 tons above the average.

IT is impossible for any one to place an accurate appraisal on such a feature as the Better Dairy Sires Train offered as it passed over the New York Central Lines in northwestern Pennsylvania during the past two weeks. We know that 74 young pure-bred bulls were distributed in the 15 counties traversed. The good that these bulls will do in the communities into which they went undoubtedly will compensate for the expenses of the train. But more was accomplished. The very spectacular nature of the train called the attention of a wide public to an outstanding need in our dairy industry, the economy in using better sires in our breeding enterprises. It will make it easier for other scrub bull users to turn over to pure-breeds in the future.

H. H. KAUFFMAN, poultry specialist at State College, gives us the following statement which pictures in concrete form the value of high-producing hens. "If a hen does not lay an egg a

year, it will take 60 pounds of feed to keep her alive. This is known as the feed required for maintenance of life. A hen that lays 150 eggs consumes about 75 pounds of feed per year. A 200-egg hen eats about 30 pounds of feed per year. These figures prove that the higher the production the cheaper the production. If a hen lays 60 eggs per year, she barely lays one egg for each pound of feed she consumes. A 150-egg hen lays two eggs for each pound of feed she eats and a 200-egg hen lays 2½ eggs for each pound of feed she eats."

New Jersey Notes

APEN of ten White Leghorns owned by Charles W. Brown of Vineland won the Vineland International Egg Laying Contest which closed its twelfth year on October 22. His birds were more than 100 eggs ahead of the runner-up, having laid 2,544 eggs with an average of 254 eggs per bird.

AT the New Jersey Bankers' Agricultural Convention which was held at the New Jersey State College of Agriculture, New Brunswick, on November 23, an important phase of farm accounts was demonstrated. Accounts that are properly kept serve as a basis for loans when negotiating a loan at the bank. Farm credit policy and ways in which banks can help build up agriculture were discussed by W. J. Gause, vice-president of New Jersey Bankers' Association, and E. B. Harshaw of the City City National Bank, Pennsylvania.

PLANS for a third egg-laying contest in New Jersey, with Hunterdon county as a local site, have made considerable headway during the fall. The local contest committee reports subscriptions received for the major amount of money needed as well as the signatures of a number of poultrymen who will enter the contest when established.

SOUTH JERSEY cow testers, dairymen and extension men met at Mount Holly, N. J., on November 14 to discuss the progress and problems in cow-testing association work in New Jersey. At this conference J. B. Parker, Bureau of Dairy Industry, U. S. D. A., emphasized the necessity of complete yearly records in proving sires and in improving feeding practices and intelligent weeding of the herd. E. J. Perry, dairy specialist of the New Jersey Experiment Station, reported that over 400 farmers owning over 10,000 cows were now enrolled in the various cow-testing associations throughout the state. New Jersey has the second best record, with 7.9 per cent of its total dairy animals now on test.

THE third evening meeting of the fertility school held at Beverly, N. J., on November 14 showed a growing interest in these weekly meetings. Fertilization, marketing and handling of sweet corn were topics of discussion. At later meetings problems related to peas, beans and cover crops will be considered. In this section of Burlington county a large acreage of sugar corn, peas and beans is grown each year.

THE New Jersey State Bureau of Markets has started an innovation in market reports through a service inaugurated recently, which gives the latest quotations on apple sales at the farm. Increasing use of motor trucks for marketing purposes is enabling New Jersey growers to sell a larger proportion of their apples on the farm to buyers or speculators from nearby cities. The department is recording these prices in conjunction with its general daily quotation service.

THE New Jersey Farm Bureau Federation is making a special study this winter to secure better farm representation on various state boards and commissions in which agriculture is particularly interested. Recent meetings of the Farm Bureau and other organizations have brought before the public and decision makers the need for a more direct representation of the New Jersey State Highway Commission, the State Board of Education, the Fish and Game Commission, the Cattle and Horse Commission and similar bodies. The members maintain that with a \$300,000 investment in farming and \$100,000,000 annual production they are entitled to considerably more in the way of consideration than they are now receiving from these committees. A special committee of the Farm Bureau Federation has been appointed to consider the subject further, and to report at the legislative conference of the Farm Bureau and the Grange during December on ways and means to bring about action.



Part of Eight Auto Loads of Indiana County Fruit Growers Who Visited Orchards and Packing Houses in Butler and Allegheny Counties This Fall.

Farm Practice—Unprofitable Lands

By W. D. ZINN

As I drive through West Virginia, Virginia, Pennsylvania and the eastern part of Ohio the amount of unprofitable lands I see is appalling. These lands are liabilities to their owners. Many farms do not pay because of the excess of liability. What to do with this land is a question that is worrying hundreds of farmers today. It cannot be sold, for nobody wants such land. To pay tax on it is a hardship but the taxes must be paid and to do it takes all that the better land can make. If it could be divorced from the better land the owner would be the gainer. If it were sold for the taxes the owners would be ahead. If it is ever sold for taxes the state must become the purchaser and she might as well do without the tax money as to buy it.

There is but one solution of the problem for the owner and that is for him to reforest it. That is a long-time proposition and many farmers are not able financially to hide their time. The farmer who has a large proportion of his land of this character is like the man who owes a large debt and the interest of this debt is rapidly driving him to the wall. Sometimes it is better to surrender than to postpone the evil hour.

What This Land Needs

There is, however, hope for a great deal of this unproductive land and that hope lies in the ability of its owner to lime and apply phosphate to it. So long as these remedies are withheld the land will remain unprofitable. While much of this land is in direct need of lime it is also true that its need of phosphate is as great. I was told by the county agent of Montgomery County, Ohio, that many samples of soils showed a greater need of superphosphate than of lime.

Many farmers appreciate the need of lime in their soils but a much less number realize the importance of applying phosphate. This is true not only of a grain-growing country from which much grain has been sold but it is equally true of livestock sections where much livestock has been grown and driven from the farms. If the land can have lime sweet clover may be grown which will furnish the nitrogen to grow bigger and better crops. Apparently this clover is not as hungry for phosphorus as are the other clovers, for it seems to do well on very thin land if only the limestone requirement has been met.

Poverty Grass Thrives

On much of this land poverty grass is very much in evidence and there are few better indications of acidity than this almost worthless grass. It is almost useless to apply the acidity test to land that is producing poverty grass luxuriantly. In Hocking county, Ohio, a poverty grass sod was treated to 400 pounds superphosphate and two tons of ground limestone and no seed was sown and no cultivation given the land and yet the increase in production of hay was more than four hundred per cent, but a ton of that production was worth more than two tons of the poverty grass hay. When this was considered the increase was more than 800 per cent.

Fondness for a Business

Many a man fails in life for the reason that he failed to find himself when starting out on his career. Few men will succeed in an undertaking unless they have a fondness for the job. I do not believe that every boy reared on the farm will succeed at farming any more than that every boy would make a success at practicing medicine. The middle-aged man who is on a farm and detests his job would better leave it, provided he can find something that he really likes. He

would still have a half chance of winning.

To my mind there is no sadder condition than a man to be tied down to a farm who has no love for his work and sees no possibility of ever extricating himself. No man should engage in the business of farming because he believes it offers the best opportunity for making money. If he does so he is likely to be disappointed in after life, but if he enters on the work with the idea that it is the most independent life and one that offers as many opportunities for rendering service as any other and he really loves the business he is not likely to be disappointed.

Not all young men at the age of twenty know for what business they are best adapted. At that age the writer detested farming and was making



This Tractor Has Been Working on the Penn'a State College Farms Since 1919

Agricultural Engineering

By R. U. BLASINGAME

What Is Tractor's Life?

THIS illustration shows a tractor which has been in operation on the Pennsylvania State College Farm since 1919. During that time of course it has had considerable repairs. However, it was being used on the farm this year and doing first-class work.

A great many people say that tractors will not last any more than five or six years. Possibly a great many tractors do not last that long. Often, however, it is the operator's fault. While this tractor has had a good many drivers, yet they have all been reasonably careful for the most part, and the old tractor seems to be in condition to do more work in the future.

This illustration shows the tractor being used in the preparation of land for potatoes last spring. Yet when silo filling time came around this machine pulled two binders and cut several hundred tons of corn for the silo.

Success with Milking Machines

THE question is often asked whether milking machines are successful. I know of a great many successful dairymen who use milking machines with excellent results.

I have in mind a dairyman whom I visited just recently in Franklin county, Pa. This dairyman's name is Dr. J. S. Stevenson. Dr. Stevenson has been using a milking machine for quite a while, and he says that he would not like to be in the dairy business and be without this equipment. He pointed out the fact to me that the particular

his arrangements to go into one of the so-called professions. At that time my father died and my burning desire to obtain an education had to be suppressed. I am a farmer through the force of circumstances, but I had not been engaged in the business long until I was very fond of it. I worked at the job very hard both mentally and physically. I do not think any man who fails to do this is going to have success attend his efforts. The mental work has counted for fully as much as the physical.

I have made no howling success of my job, but I have had a lot of pleasure in my calling and have been able to educate my two children and lay enough by to keep my wife and me even if we should live to be very old; but if that were all I have done my life should be looked on as a complete failure. I hope, and really believe, I have been the means of helping others.



A job of wood-cutting has less terrors for the farm boy since the more general adaption of the buzz-saw for this purpose. The farmer shown above has hitched his tractor to the saw and makes quick work of getting up a season's wood supply.

Convenient Buzz Saw

THIS illustration shows a wood saw attached to the front end of a tractor, which can be detached in very short time. The belt which runs the saw is located on the opposite side of the tractor.

One of the convenient things about this arrangement is that the tractor and saw can be moved around from place to place convenient to the wood.

This is one of the well-known general-purpose tractors, which has given such wonderful satisfaction since it came on the market, two or three years ago. I have seen a great many farmers in Pennsylvania and Ohio who own these tractors, and they are highly pleased with not only the power of the tractor but the multiplicity of jobs it will do.

It is provided with a power take-off which can be used for operating a corn picker, grain binder, potato digger, as well as a sprayer for potatoes and orchards. The manufacturer has adapted a two-row corn planter and a row cultivator to this tractor. In the Middle West many farmers plant and cultivate four rows at a time with

Water System for Poultry

EXPECT to pipe running water in our chicken houses. I always have the doors open during the day in winter even when it is 15 to 20 degrees below zero, as we let our hens run in the snow. Will you kindly tell me how the system should be arranged to keep pipes from freezing, and to keep doors from clogging them? I have two coops about 20 feet apart. One has 100 hens and one 200 hens. A wire partition is in the middle.

My water supply isn't so very plentiful in very dry weather. I would not doubt have enough to keep it running as well as day. I have a 4-inch pipe in the other outbuildings and intended to use inch pipe (twrought iron) until I reached the coops. What size would you recommend then? Rats are quite plentiful. One coop has a concrete floor, one a wooden floor. That would have to be considered in case the pipes had to be wrapped. WILLIAM GERTZ

Refrigeration Helps

It is true that Dr. Stevenson has a vat type of mechanical refrigerator which aids considerably in controlling bacteria. There are, however, many other reasons why he is able to produce such clean milk. When I went into his barn one afternoon, about two o'clock, I found it had been entirely cleaned—fresh bedding was provided and lime had been sprinkled throughout. There was little if any odor of dairy cows in the barn.

Dr. Stevenson has not built an elaborate barn, he has merely remodeled the old barn which was on the farm when he bought it. He says that clean milk can be produced if sufficient care is exercised all the way through. In his dairy house, he has two large kettles mounted on a brick furnace in which he heats water for washing milk utensils. He does not depend entirely on his refrigerating plant for control of bacteria in the milk he produces.

Some people have the idea that if milk is refrigerated the bacteria count will be low, no matter how it is produced. This is an erroneous idea according to some of the high-grade dairymen in the state.

Our Great Holiday Bird

By R. L. Scharring-Hausen

SINCE the first Thanksgiving, when wild turkeys graced the Pilgrim board, the turkey has been the American holiday bird. Rhode Island turkeys and Vermont turkeys were famous. Then blackhead came into the station, and drove the turkey business into the South, then into the West, and finally into the far West and Southwest. Now the turkey raising business shows strong tendencies of a comeback in many sections of the East where for some time it had been abandoned.

Blackhead, formerly the limiting factor in growing turkeys, has become better understood, and sanitary methods and quarantine practices adopted for its control, so that on a recent trip to New England and to Maryland I found several flocks of turkeys containing from several hundred to a thousand or more birds where blackhead was unknown, and I know of other large flocks in various nearby states where the same heartening conditions prevail. I came home with the impression that where the proper methods are employed turkey raising is about as safe and stable a proposition as any other form of poultry keeping, and certainly no less profitable. While many of these successful turkey growers had their own tricks of the trade which they do not keep to themselves, nevertheless there are certain practices which all followed in rearing their flocks, and I hope to outline them for the benefit of any of my readers who may be interested in turkeys.

Blackhead

It has been established that the blackhead organism can be transmitted to healthy birds by common chickens or adult turkeys which may act as a carrier of the disease. It is also believed that blackhead may be associated with the presence of the caecal worm, an intestinal parasite of both fowls and turkeys. Probably this worm can exist for some time in the soil, in one stage or another, as do the roundworms of domestic fowls. Two lines of attack against blackhead are at once open with this information at hand:

1. Never let young turkeys of any age come in contact with common fowls, old or young, or with adult turkeys.

2. Rear the young birds on ground which has not been contaminated by other chickens or turkeys.

Many breeders would add a third point to these two: keep strangers out of the turkey lots.

On every turkey farm which I visited I found that neither broody fowls nor turkey hens had been used to hatch the turkey eggs or rear the poult, but that this work had been done with incubators and colony brooders in essentially the same way that it is done with ordinary chicks. Apparently any good chick starter and method of rearing



Turkey Roosting Shed in Maryland

chicks will do to start little turkeys. The poult learn to roost when only a few weeks old, and perches should be provided so that they will roost nights instead of crowding in the corners. I found that practically all the growers were adding milk in some form to the ration, and all insisted on the use of cod-liver oil.

Raised in Confinement

It has long been the accepted idea that turkeys required unlimited range to do well, but all the successful growers whom I visited had adopted the revolutionary practice of rearing their turkeys in small lots, perhaps several hundred turkeys to the acre, and on one farm in Massachusetts I saw a flock of beautiful White Hollands which had been raised in confinement! Most of these growers selected a new piece of ground for a rearing range each year, although one very successful breeder declared that there was no necessity for changing so long as the turkeys kept in health. I saw quite a variation in regard to sanitation, from one grower who swept up the lot every day to others who apparently paid no special attention to cleaning up.

As soon as the poult were partly grown, and the weather had become settled, they were taught to roost in covered sheds, which aside from the roof, were entirely open to the weather. One grower had wired in the roosting shed in order to be able to confine the birds when necessary, which I thought a very desirable feature.

Rations Used

The rations for growing birds included a well-balanced growing mash, oats and wheat for grains, grit, shell, milk in some form and water. Most of these breeders were growing birds for breeding purposes rather than for market, and did not fatten them in the fall; but birds which were to be fattened and sold were started in gradually on whole corn in October, while the oil was omitted from the ration to avoid any possibility of tainting the flesh. All emphasized the fact that new grains were dangerous to turkeys, and also that all changes should be gradual.

It is surprising what a rapid growth young turkeys will make. One man told me that his young turkeys gained a pound a week after they were ten weeks old, and I saw turkeys in August which had been hatched in April



Making 27c earn 56c

A Story of "Home Mix" vs. Ful-O-Pep Egg Mash

THE TEST—Four pens of evenly selected Leghorn pullets were arranged at the Quaker Oats Company's Poultry Experiment Farm, Libertyville, Illinois, for a year's test.

Pens No. 1 and 2 were fed a common home-mixture (bran, mids, corn meal, ground oats, meat scrap, salt) and Ful-O-Pep Scratch Grains.

Pens No. 3 and 4 were fed Ful-O-Pep Egg Mash and Ful-O-Pep Scratch Grains.

THE RESULTS—Pens No. 3 and 4 (the birds getting Ful-O-Pep Egg Mash) exceeded Pens 1 and 2 as follows:

1½ doz. more eggs per year @ 30c . . .	45c
Fewer blood clots, fewer broken eggs . . .	5c
10% better hatch of 10 eggs (1 chick) . . .	10c
¼ lb. heavier weight @ 20c . . .	5c
Larger eggs, better shells (1c per doz.) . . .	13c
Smaller mortality . . .	5c

Total Extra Income per Hen 83c

Less extra cost of Ful-O-Pep feed (based on \$20 a ton difference in price and 7% greater consumption of the home mixture) 27c

Extra Profit per hen from Ful-O-Pep . 56c

THE MORAL—It Pays Real, Cash PROFIT to feed Quaker Ful-O-Pep Egg Mash. Near you is a Quaker Dealer. See him right away.

THE QUAKER OATS COMPANY, Chicago, U. S. A.

Quaker FUL-O-PEP EGG MASH



BUY THE FEEDS IN STRIPED SACKS

READ THE ADVERTISEMENTS TO RECOGNIZE PRODUCTS THAT ARE WORTHY OF YOUR CONFIDENCE



Puts More Money in the Milk Pail

NEY Dairy Barn Equipment puts more money in the milk pail. It has all the modern approved features that you want—many of them patented improvements that save much work and worry.

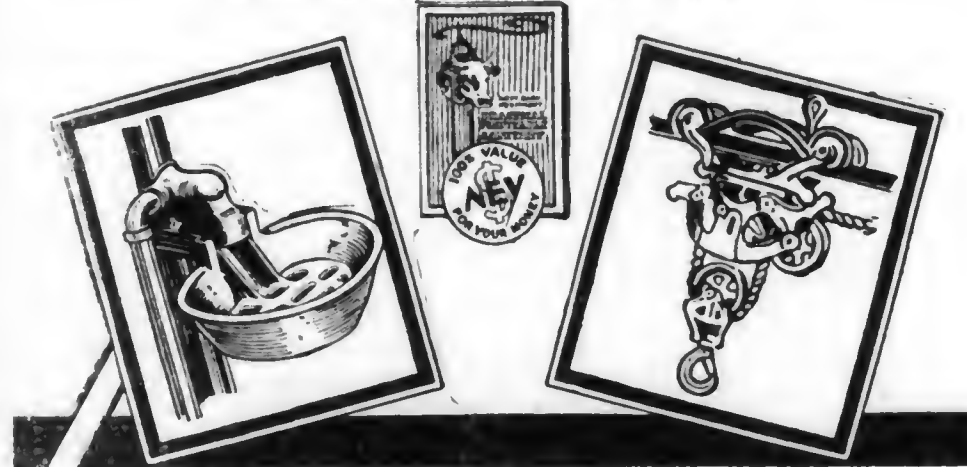
The Ney Stall illustrated has no complicated mechanical parts. As the cow enters the stall the stanchion is flipped shut with the hand.

There is just the right amount of room to provide freedom with saving of space. This simplified design is easily installed. Materials used are extra heavy for longer life.

Ney Dairy Barn Equipment like Ney Hay Tools are the result of 50 years' of experience in serving farmers with labor saving equipment. New illustrated Ney Catalog No. 150 mailed on request. See Ney Products at your dealer's store.

THE NEY MANUFACTURING COMPANY - Canton, Ohio
Established 1878 - Minneapolis, Minn. - Council Bluffs, Iowa

The complete Ney Line includes stalls, stanchions, water bowls, pails, litter carriers, haying tools including hay carriers, hay forks, hay knives, pulleys and hardware specialties.



Beacon Dairy Ration
supplies every necessity for maximum milk production and body maintenance—but nothing else. No filler of any kind. No waste products of other milling. Beacon is Quality-Built. Every item has a definite feed value for a definite need. It isn't built to meet a price market. Its unusual purity makes it the most economical Dairy Feed You Can Buy" as testified by Beacon users. 24% protein, 5% fat, not a fibre. It actually does get results.

BEACON MILLING CO., Inc., CAYUGA, N. Y.

How to Know Blood Diseases in Your Herd

Write for information. Ask for a FREE copy of THE CATTLE SPECIALIST and how to get the PRACTICAL HOME VETERINARIAN, a Livestock Doctor Book without cost. Find out why your cows lose calves—why they retain the afterbirth—why they fail to breed—why they have scours—why your calves have scours and colic—why you have a shortage of milk. Veterinary Advice Free. Write to Dr. David Roberts Veterinary Co., 126 Grand Ave., Waukegan, Wis.

Big PERCHERON HORSE FAIR
to be held at Chicago
at the International Live Stock Exposition—December 1-8

250 Stallions and Mares on Exhibit
Prices Range from \$300 to \$5,000

This is the place to go to buy Percherons. Here you can see the best horses of the breed to be found anywhere. You can buy show horses or you can secure good, serviceable stallions suitable to stand for public service in your stable. You can buy the best that you can find at the way of pedigree horses or you can get splendid teams of purebred work horses of very reasonable prices. You spend a lot of time and money traveling over the country trying to find what you want when you can come to this big horse show and be sure to find it.

Would you and make your purchase yourself, but if you cannot do this, write or wire and we will send you the kind of Percherons you would like to buy. We will telegraph you and arrange sales. No charge for this service.

PERCHERON SOCIETY OF AMERICA ELLIS M. FARLAND, Secretary
U. S. YARDS, CHICAGO, ILL.

READ THE ADVERTISEMENTS TO KNOW WHAT IS BEST AND WHERE TO BUY

Farm & Dairy By L. W. LIGHTY

Some Feeding Questions

"I USE clover hay for roughage. Would equal parts of ground oats, wheat bran, corn meal and oilmeal be a good cow feed?"

This makes a very good practical combination and where a man has the corn and oats and the other feeds are common and easy to get it is a feed that may be recommended as economical and very satisfactory. "Would the commercial feeds common on the market be better?"

They would not be better for the man who has the home-grown grains, but where the man has no home-grown grains some of them may be as good and more convenient. The best commercial feeds have all the ingredients this farmer names with possibly a few more added, but as a basis for a cow ration there is nothing equal to the four feeds he names.

"If I keep rock salt where the cows can get it should I give them salt on their grain feed?"

Very surely yes. Use fine pure salt and give the cow on her morning and evening grain ration a tablespoonful of this salt. If she needs more salt let her get it from the rock salt and some will take a bit more but many not. If cows are dependent on the rock salt for the entire supply their tongues will often smart and they fail to take enough salt and the common-sense way to feed salt is to put it on the feed as we put it on our feed. Feeding enough salt is very important and is often neglected.

"How much grain as above will a small Jersey cow giving 20 pounds of milk require?" About seven pounds.

"Would a large cow giving the same quantity of milk require more grain?" Theoretically yes. But while the theorists are splitting hairs on these finer problems we cow feeders learn in a good measure the requirements of the individual cow by careful observation and get the most economical results in this way.

We understand that these feeding theories are very useful if we learn to

use them in our very practical work. But the cow does not know decimal points and the average feeder has little patience with them and for these reasons we take our theory and add a big measure of common sense to it and the resulting mixture enables us to do the best work in the feeding alley.

Limit the Roughage?

I HAVE a letter from a dairyman who has roughage for eight cows but he has now fourteen cows and he wishes to know if it were better to limit the roughage or sell about six cows. This is a very practical question, but only the man on the spot can answer it. There may be a contract to fill so the cows are needed. The shortage of roughage may be only temporary and the whole number of cows could be fed liberally next season. There are many factors to consider.

Some people have a habit of always having too many cows for the roughage or the pasture. The sooner they sell the surplus the better. Some, indeed too many people, have a number of non-paying cows and thus must skimp the roughage. These boarder cows cannot be sold too soon. But it is well to remember that only in very special cases does it pay to skimp on roughage for the cows and replace it with costly grain. The margin is too small on the product at this time to increase the cost in this way, and it does increase the cost. The roughage of the farm is the cheap feed for the cows, and because it is cheap and not easy to market we can make dairying on the farm profitable. Hence the answer to the above question is to sell the surplus cows unless there is a very special reason for keeping them.

Put Yourself in Your Work

FITNESS is foodiness. Vacillation is failure. Mark out a line and how to be regardless of what the chips fly. Believe in yourself and your work. Do not attempt everything but



F. W. MANDEVILLE
County Agent

Butler County's Yearly Report on Testing



I. E. M. 3

The Butler County Cattle Association, Inc., held its annual meeting at the Hotel Butler on November 1, 1928, with 24 whole year members. In addition seven members were in the Association part of the year. There were 415 cows in the Association during all or part of the year.

The results of the whole year testing are as follows:

Total average number of cows in the association	478.90
Average per cow	278.90
Pounds of milk	7,738
Pounds of butterfat	316.5
Percent of butterfat	4.1
Value of product	252.65
Cost of pasture	8.64
Cost of roughage	35.85
Cost of grain	10.11
Total cost of feed	124.51
Value of product above feed cost	128.14
Return per 100 lbs. of feed	1.24
Feed cost per 100 lbs. of milk	1.24
Feed cost per pound of fat	.32

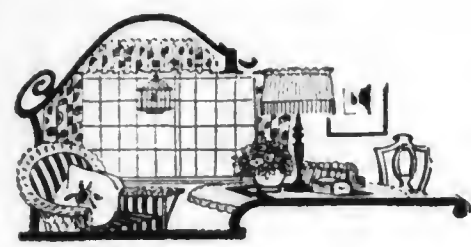
Individual Herd Records

Sixteen herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat.

Individual Cow Records

Following is a grouping of all cows during 1928:

Group 1, between 200-300 pounds	11
Group 2, between 300-400 pounds	4
Group 3, between 400-500 pounds	1
Group 4, between 500-600 pounds	1
Group 5, between 600-700 pounds	1
Group 6, between 700-800 pounds	1
Group 7, between 800-900 pounds	1
Group 8, between 900-1,000 pounds	1
Group 9, between 1,000-1,100 pounds	1
Group 10, between 1,100-1,200 pounds	1
Group 11, between 1,200-1,300 pounds	1
Group 12, between 1,300-1,400 pounds	1
Group 13, between 1,400-1,500 pounds	1
Group 14, between 1,500-1,600 pounds	1
Group 15, between 1,600-1,700 pounds	1
Group 16, between 1,700-1,800 pounds	1
Group 17, between 1,800-1,900 pounds	1
Group 18, between 1,900-2,000 pounds	1
Group 19, between 2,000-2,100 pounds	1
Group 20, between 2,100-2,200 pounds	1
Group 21, between 2,200-2,300 pounds	1
Group 22, between 2,300-2,400 pounds	1
Group 23, between 2,400-2,500 pounds	1
Group 24, between 2,500-2,600 pounds	1
Group 25, between 2,600-2,700 pounds	1
Group 26, between 2,700-2,800 pounds	1
Group 27, between 2,800-2,900 pounds	1
Group 28, between 2,900-3,000 pounds	1
Group 29, between 3,000-3,100 pounds	1
Group 30, between 3,100-3,200 pounds	1
Group 31, between 3,200-3,300 pounds	1
Group 32, between 3,300-3,400 pounds	1
Group 33, between 3,400-3,500 pounds	1
Group 34, between 3,500-3,600 pounds	1
Group 35, between 3,600-3,700 pounds	1
Group 36, between 3,700-3,800 pounds	1
Group 37, between 3,800-3,900 pounds	1
Group 38, between 3,900-4,000 pounds	1
Group 39, between 4,000-4,100 pounds	1
Group 40, between 4,100-4,200 pounds	1
Group 41, between 4,200-4,300 pounds	1
Group 42, between 4,300-4,400 pounds	1
Group 43, between 4,400-4,500 pounds	1
Group 44, between 4,500-4,600 pounds	1
Group 45, between 4,600-4,700 pounds	1
Group 46, between 4,700-4,800 pounds	1
Group 47, between 4,800-4,900 pounds	1
Group 48, between 4,900-5,000 pounds	1
Group 49, between 5,000-5,100 pounds	1
Group 50, between 5,100-5,200 pounds	1
Group 51, between 5,200-5,300 pounds	1
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Group 59, between 6,000-6,100 pounds	1
Group 60, between 6,100-6,200 pounds	1
Group 61, between 6,200-6,300 pounds	1
Group 62, between 6,300-6,400 pounds	1
Group 63, between 6,400-6,500 pounds	1
Group 64, between 6,500-6,600 pounds	1
Group 65, between 6,600-6,700 pounds	1
Group 66, between 6,700-6,800 pounds	1
Group 67, between 6,800-6,900 pounds	1
Group 68, between 6,900-7,000 pounds	1
Group 69, between 7,000-7,100 pounds	1
Group 70, between 7,100-7,200 pounds	1
Group 71, between 7,200-7,300 pounds	1
Group 72, between 7,300-7,400 pounds	1
Group 73, between 7,400-7,500 pounds	1
Group 74, between 7,500-7,600 pounds	1
Group 75, between 7,600-7,700 pounds	1
Group 76, between 7,700-7,800 pounds	1
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Group 78, between 7,900-8,000 pounds	1
Group 79, between 8,000-8,100 pounds	1
Group 80, between 8,100-8,200 pounds	1
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Group 161, between 16,200-16,300 pounds	1
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Group 218, between 21,900-22,000 pounds	1
Group 219, between 22,000-22,100 pounds	1
Group 220, between 22,100-22,200 pounds	1
Group 221, between 22,200-22,300 pounds	1
Group 222, between 22,300-22,400 pounds	1
Group 223, between 22,400-22,500 pounds	1
Group 224, between 22,500-22,600 pounds	1
Group 225, between 22,600-22,700 pounds	1
Group 226, between 22,700-22,800 pounds	1
Group 227, between 22,800-22,900 pounds	1
Group 228, between 22,900-23,000 pounds	1



The Farm Home



Ten Years Ago and Today

By HEPSEY NEFF

"There is a destiny which shapes our ends,
Rough-hew them how we will."

AMERICA'S first Thanksgiving was held before our struggling colonies had been divided and named as states. Following the Puritan custom of recognizing the Divine hand in human affairs and after a comfortable harvest a day was named for public thanksgiving and rejoicing together and a few grains of corn was laid by each plate as a reminder of the lean years of their struggle. The custom of thanksgiving has never been allowed to lapse by the people of the United States.

Why November should have been chosen as the month when the people of this nation should choose a President for these forty-eight states may forever be an open question. Why the Great War should be ended by the signing of an Armistice on November 11th may also be forever an open question. But no Thanksgiving Day, hereafter, can ever be remembered without remembering that great day when peace was given to the civilized world on November 11, 1918, just ten years ago. Many of us have special reason to remember those early November days of 1918 when our sons were still overseas or in training at home. It was the mothers who suffered most during those terrible days, for we had no relief from the fears which haunted us day and night.

Some Blessings

These years that have followed have not been without anxieties, as we have seen our shattered veterans one after another break under terrible memories, nervous strain and wasting diseases. We have seen the spirit of service that helped win the war renewed in our veterans' organizations which will never forget those who suffered with them. We have seen our government provide increasing relief for these suffering veterans as well as the proof of this relief in returning health, and for this we are thankful. Best of all, we have seen a great work done, largely by the help of our own leaders, in laying the foundations for World Peace.

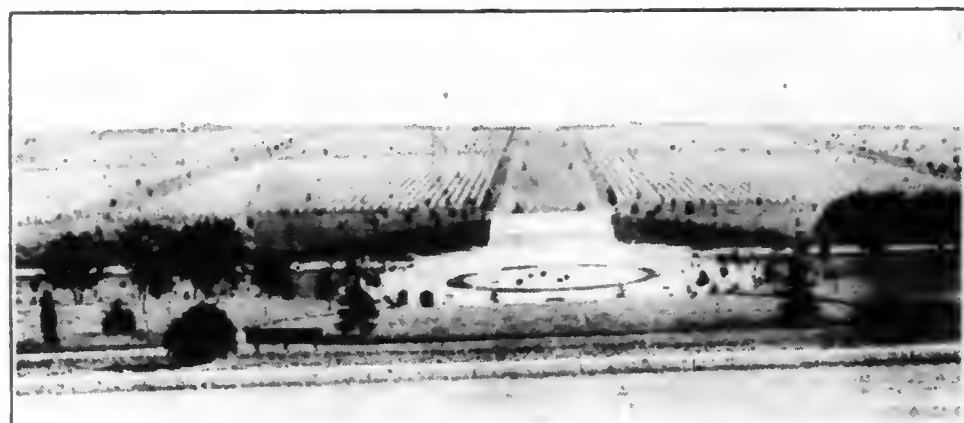
We find especial cause for thankfulness in knowing that the three men who did most to bring about the signing of the Peace Pact came from the United States, France and Germany. Again we must not forget that great leaders come from years of service, hard work and high purpose. In 1926 Germany became a member of the League of Nations. On that occasion her foreign minister and leader made a speech which reads like some that were made when our leaders signed the Declaration of Independence.

For World Peace

Speaking for Germany, Herr Stresemann said "Universality alone can protect the League against the danger of using its forces for other purposes than in the service of peace. Only on the basis of universality can all nations, without exception, and on the basis of universality can the League of Nations be a true League of Nations."

M. Briand, France's foreign minister and untiring in his efforts for peace,

made an appeal to the people of the United States through a newspaper rather than direct to our government on behalf of some action looking toward a special agreement for peace. Our Secretary of State, Mr. Frank B. Kellogg, took up this indirect suggestion and a correspondence began which ended last August in the acceptance of the proposal for a peace pact which was signed by Sir Austen Chamberlain for Great Britain, M. Briand for France, Mr. Kellogg for the United States, and Herr Stresemann for Germany. At least some of the articles of this latest peace pact, which up to this time has been signed by fifteen nations, should be in the possession of every citizen of our country and we offer copies of the two first articles which are the kernel of the whole agreement.



The Largest American Cemetery in France. Over 14,000 American Boys Are Buried in This Cemetery. The Graves Are All Marked with Stone Markers and the Entire Cemetery Is Splendidly Cared For.

Just a Month Till Christmas

By GERTRUDE S. STEWART

USUALLY at Thanksgiving time we begin to realize how very near the great gift season is. Then it is we concentrate on our lists and start the fancy stitches that Santa may have the help he needs on Christmas Eve. Last year there were five of us women together at the annual feast, and no sooner were the dishes put into the cabinet than we were comparing catalogs and sharing shopping experiences.

Now and then we find a thrifty one who began her Yuletide needlework last January, but most of us who live on the farm and are raising children and calves and chickens have this problem staring us boldly in the face today.

Perhaps we can help you. We have some very attractive gift values for the woman or girl who embroiders. Aprons are always received with joy. We can offer you three styles. Dainty ones of checked batiste in blue, gold or rose are 75 cents each. More sturdy ones of unbleached muslin with a blue chambray pocket are 50 cents each. The high school Miss will enjoy one of sturdy flannelette in peach or brown bound in white at 75 cents each. These aprons are made, needing only a touch of embroidery to add the festive air. They are ready stamped.

For the One-Year-Old Lassie

Cottony voile dresses, all made in yellow, pink, or blue will be nice for the tiny toddlers. They are \$1.25 each, and have a neat design on the wide hem.

Article 1

The high contracting parties solemnly declare, in the names of their respective peoples, that they condemn recourse to war for the solution of international controversies, and renounce it as an instrument of national policy in their relations with each other.

Article 2

The high contracting parties agree that the settlement or solution of all disputes or conflicts of whatever nature or whatever origin they may be, which may arise among them, shall never be sought except by pacific means.

Surely, the prospect for world peace is better than it has been since the Prince of Peace left His great message to a little province of Rome among Judea's hills. This is the crowning work of the past ten years and while we rejoice in it and give thanks for it let us remember that peace can prevail in the world only as it rules in the hearts of men, and only as we who read these lines become truly law-abiding, truth-loving and faithful in our daily tasks.

We Are Thankful

I SAT with pencil and paper, figuring. First I made a list of things I wanted to buy, and estimated the money needed. Then I re-made a list. This time I marked things I had money sufficient to buy. "Thanksgiving," I mused, and so little for which to be grateful.

The day was most beautiful, and I walked to the village to do my shopping. I used the short cut across the pasture, drinking in the autumn sunshine and the crisp pure air. Then the thought flashed across my mind: "Oh! to be alive on a day like this should be enough to awaken gratitude."

Soon I reached the home of my daughter, and stopped in a moment to chat with her and see my grandchildren. After a good romp with them, I hastened off, looking back to answer their lusty "good-byes." Their smiling eyes and waving hands relaxed me again. How could I think I had so little for which to be thankful?

Soon there was a great rush of boys and girls hastening home from school for lunch. How they smiled and greeted me! "Hello! Aunt Sally!" rang merrily from their lips. One lad who saw me retiring from a closed shop door, called out, "Wait there a minute, Auntie, I'll go round back and see Mr. X for you."

No need to tell you that my list was all gone. I shopped for an hour, buying what things I could. On my homeward journey I kept thanking God for the precious love of little children.

School Advantages

WE missed reading "What Mother's Letter," but were much interested in the replies. It had been occurred to us here that the availability of high school was ever so much less than college, and seemed almost impossible. Our young folks, like high school as a matter of course, and all of them go, but nearly all of them the grades with any degree of ease.

Time was when high school was about the same position with relation to the average boy and girl that college holds today. With the rapid advancing educational standards, a young person without at least a high school diploma is terribly disappointed and much handicapped.

Often country folks cannot keep their young people at home and educate them adequately, too. But in most cases they need not be far away, and are easy to reach at any time. My own little daughter entered business college this fall, having completed high school last June. She is fifteen miles away, and her environment is not all that we would desire. But, is it anywhere?

Can't we find questionable amusement and doubtful company about our own caves? And if we can't, we trained our children to choose the better things, are they not? We are in danger right in the home. We cannot shield them always. We must trust largely to their application of what we have taught them.

It is easy to see how the downward could be taken with a high school, but it might be to grade school, or even to high school. "An ill-fated average," it is a rural life, and we have not the money to send them to college, or to the city. So we must trust to the better things, are they not? We are in danger right in the home. We cannot shield them always. We must trust largely to their application of what we have taught them.

What a sight greeted his eyes after Thanksgiving dinner. A good thing it was, too, and Tommy ate his like the healthy boy that he was. Later that day Tommy was playing with the gray squirrels that scampered about in the park, when the lights began to twinkle in the great house where the Prince Boy lived. Tommy drew nearer and nearer to the windows, wondering if he might see the little boy at Thanksgiving dinner.

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Two Boys Made Happy

A Thanksgiving Story for Little Folks

By Mrs. A. C. MAMMAL



LITTLE seven-year-old Tommy O'Day lived in a beautiful park surrounding a mansion. His home was a modest cottage near the edge of the park, for his father was gate-keeper for the owner of the big, beautiful estate. Tommy played beneath the tall, stately trees, sailed boats and fished merrily in the gurgling little brook that ran by the cottage where he lived. Sometimes he made believe that he was a prince and that all these lovely woods and gardens, and the big mansion were his.

There was another little boy who did live in the beautiful house of the park. It was a palace fit for a king. He was a very lonely little boy, too. Tommy knew nothing of this, however, and would dart from bush to bush, peering around them to watch the Prince Boy, as Tommy called him, ride his ponies about the park. When the Prince Boy went for a ride in one of the beautiful cars, Tommy stared after him enviously.

The Prince Boy did not know even that Tommy lived in the grounds, for he was very carefully cared for and always had some one by his side. Sometimes he longed to run away and do as he pleased for one whole day. Of course he never had a chance to do that. Each boy longed for the other. Each boy longed for the other.

The beautiful November morning Tommy's mother opened his bedroom door and called gaily: "Good morning, my dear! Isn't this a glorious morning for Thanksgiving? What a day we have to be thankful for! Just as the ground is covered with snow, if you hurry you can coast for a while before the sun melts it. Tommy! Aren't you happy to be on a day like this? What are you so thankful for, sonny, dear?"

Tommy didn't answer his mother. He was thinking of the big, bright new car he had seen up at the big house. "No," he said, peevishly. "My sled's so good. It's too small. Ma, are we going turkey for dinner?"

His mother's face fell, but she answered brightly, "No, son, a turkey is a lot of money, and you know your daddy's illness took the turkey money, and a lot besides. But we have great many things for which to be thankful. Daddy is well and strong. Isn't that enough?"

But Tommy was in a bad humor for no reason or other, and he wanted to hurt his mother, so he didn't answer. He left the room without another word and started preparing their modest Thanksgiving dinner. A good thing it was, too, and Tommy ate his like the healthy boy that he was.

Later that day Tommy was playing with the gray squirrels that scampered about in the park, when the lights began to twinkle in the great house where the Prince Boy lived. Tommy drew nearer and nearer to the windows, wondering if he might see the little boy at Thanksgiving dinner.

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approving men, but he soon forgot to be afraid as his friendly little host made a place for him by his side, asking Tommy questions as fast as he could. Tommy told the Prince Boy all about his home, and his father and mother, and how he played in the park and watched the other boy ride his ponies and go for rides in the lovely cars. He told him they had no turkey for dinner and how badly his mother felt because they did not have one.

"What a lucky boy you are!" cried the Prince Boy. "My mother died a long time ago, and my father had to go away this very day. He's most always away, and I get so lonely. I'm so glad you came, and you must come every day. I'll let you ride my ponies."

Thanksgiving

Margaret Steele McCreary

O Lord, I thank Thee for my home
With all its cheer and rest;
For purple dawns my firelight throws
When day has bled the West.

I thank Thee for my country's peace;
For sunshine, snow and rain,
And to the joy of harvest, Lord—
Abundant fruit and grain.

For zest of friendship and for work,
For strength to meet each day,
For beauty of the hills and fields,
For love along the way.

These things are good, but this is best—
I thank Thee most of all
For Him who gives the Bread of Life,
Who hears me when I call.

and take you lots of rides in my car." The boys both clapped their hands in excitement, and talked and ate as fast as they could.

Tommy was bursting with news when he ran home to his mother, who clasped him eagerly, saying, "Darling, where have you been? Mother's been so worried." How good his dear mother's arms felt about him as he told her all about the little boy in the great house—a house filled with beautiful things and many servants, but having no mother and not often a father for the little boy to talk to. "I'm more thankful for you and daddy than anything in the world, and I don't care if we didn't have a turkey today."

A "Mother Substitute"

THE article on the danger of sending children away from home that they might attend high school reminded me of a solution to this problem worked out years ago in my home community. Eight young girls from an isolated farming district attended the high school where I, too, was a student.

These eight girls were all bright, enthusiastic and earnest and although they had attended a little old school house among the mountains, after entrance examinations they found themselves in classes with town girls who were one or two years older.

Mothers then were just as anxious as they are today and had the same fear of sending their girls away from home and into a city. They talked matters over at a church dinner one day and one of them suggested a possible mother substitute. There was in the community a woman respected by all and beloved by the girls of her Sunday school class over whom she had exerted a powerful influence. This

woman was interviewed by the mothers. They learned to their delight that she would willingly spend eight months in the city making a home for the eight girls and this plan was carried out with wonderful success.

A small furnished house was rented, all possible food was taken from the homes of the girls and the parents divided equally the cost of light, heat, rent, extra food, etc.

At the end of the school year it was found that the cost had been much less than if the girls had boarded in the city. They had been under the supervision of a perfectly trustworthy "Mother substitute" and the months had been not only helpful but very pleasant.

I remember asking the "Mother substitute" how she secured such willing obedience to every request. She laughingly explained that before assuming the responsibility she insisted that the parents give her their permission to send any girl home who failed to do as she told her. The girls were made to understand that she would as all herself of this permission without fear or favor.

With present day facilities for travel it would be possible for the girls to spend week ends at home, but their class standings would probably be better if they visited less frequently, and spent Saturday afternoon in art gallery or library, and attended church on Sunday.

Unusual Thanksgiving Goodies Baked Onions

Skin and cut onions in thin slices. Put a layer of them in baking pan, and dredge with flour, salt and pepper. Add ham drippings or a few thin slices of bacon. Repeat layers as above until pan is filled. Add hot water to nearly cover, and bake until onions are tender and nicely browned on top. E. May Willis.

Fashions and Patterns

The sensible patterns shown on this page are becoming more and more popular with town folks, as the directions are easy to follow, orders are promptly filled and the price, 15 cents, postpaid, or two for 25 cents, is less than half of the usual store price. Order by number and state size in all cases. Address Pattern Department, Pennsylvania Farmer, Pittsburgh, Pa.



No. 3461—A favorite. Designed in sizes 16, 18 years, 36, 38, 40, 42 and 44-inch bust measure. Size 36 requires 3 1/2 yards of 40-inch material with 5/8 yard of 25-inch contrasting.

No. 2620—For smart daytime wear. Designed in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 3 1/2 yards of 40-inch material with 5/8 yard of 25-inch contrasting.

No. 2614—Smart comfortable. Designed in sizes 16, 18, 19, 20 and 22 years. Size 18 requires 2 1/2 yards of 40-inch material with 1 1/2 yards of 25-inch contrasting.



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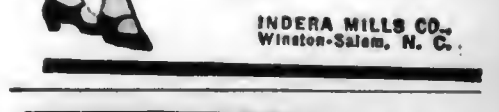
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L. J. FORDHAM was speeding down the Dexter Pike in a trim little roadster when a shrill cry for aid from a rather dilapidated old farm house sounded on the sweet autumn air. The occupant of the car was in haste to close an important deal for the firm of Murdock and Murdock, and had been exceeding the speed limit, but there was nothing to do but to respond to the call, particularly as clouds of smoke were rolling from the back part of the house. The excited old lady whose clothes had taken fire was rescued without a real burn in a few minutes and a one member amateur fire company put the house out of danger with a wet sheet from the old lady's tub standing conveniently by.

"And it won't even get into the newspapers!" said the gratified old lady when it was all over. "You see my children say I must not live here by myself, but it's home and I'm not satisfied anywhere else. I never can thank you enough, and you won't lose anything by this day's deed of kindness. Remember that! Sophia Morse is not one to forget a kind act. And I'm going to pray every day that God will add some special blessing to your life. I never saw anyone act so quickly and—"

L. J. Fordham was impolite enough to cut short the volume of thanks, and rush at a little greater speed down the pike which fortunately was deserted at that hour. As the little roadster responded the occupant could not but think what business training and level-headedness could do. Business was L. J. Fordham's hobby, and had been for nearly fourteen years past. A trusted, valued employee, possessed of superb health, envied by many, sagacious, factually and at peace with the world, what more could mortal want? A hasty resume of school mates gave added satisfaction, for there was none with whom an exchange would have been made. In due time Ripple Creek was reached, the business transacted and there were still a few minutes to spare, thanks to efficiency and planning.

The evening paper had nothing to say about the fire, which entirely satisfied L. J. Fordham, who felt that the old lady might have liked to be in the limelight for a brief moment and so telephone the news of the fire to the paper, or claim some damage to her kitchen through the brief blaze, but there was nothing to betray the incident. A delicious dinner in a first-class private boarding house, the thanks of the firm and an evening spent in a comfortable, even luxurious room finished a day that was very much like other days in a busy business career, except for the fire which would be forgotten in a few days.

"BLESS my soul! What have we here?" The light in the luxurious living room of L. J. Fordham revealed baskets and paper cartons tied shut with corn twine, and boxes, and earthen jars, and tin pails and so much clutter that it was almost impossible to get about in the room. The landlady came hurrying up to explain the situation as well as she could.

"Some old lady was here this afternoon with all this stuff," said the landlady. "She said she was under great obligation to you and had brought you some things for a Thanksgiving dinner. She said you had done her a great favor some time ago, a thing she could not explain, and that this was her way of thanking you. She said you'd understand."

When everything was opened the room seemed overflowing with Thanksgiving cheer. Glasses of amber and deep red jelly, rich preserves in old sugar bowls and spoonholders, a roll of butter decorated with fancy curls, a huge dressed turkey, a pair of tender plump chickens, potatoes, sweet potatoes, eggs, fresh sausages, carefully saved grapes, pears, apples, jars of cooked pumpkin for pies, cream, turnips, two huge frosted cakes and other things all mixed worse than her en-

L. J. Fordham's Thanksgiving

By HILDA RICHMOND

erated. It was exactly what a country housewife would prepare for a big old-fashioned Thanksgiving dinner, and though no name was attached the efficient L. J. Fordham had little difficulty in identifying the author of the miscellaneous shower of good things. A sudden thought struck the occupant of the room and for an hour thereafter the telephone was kept busy with invitations to an impromptu dinner the next day. Just how the dinner was to be cooked, and where, the owner of all the richness upstairs did not explain—there was no time to explain. One and all thanked the would-be entertainer and declined, Thanksgiving being next day and all preparations having been made. Beginning with personal friends and coming down at last to the old people who never get any Thanksgiving bounty unless a well-to-do, hospitable family circle opens to receive them, there was not a single unattached person to be thought of for the dinner that was in the raw state at that hour without a place to cook in, or any plans made in any way to entertain.

L. J. Fordham went slowly back to the luxurious room in the twilight of a chill November day on which a rain was falling dully, and had a bad half hour alone with all the Thanksgiving richness. For the first time in fourteen years the thought of business attainments failed to satisfy. A left-over, a freak, foolish, deluded—the names that were self-imposed were far from complimentary. From the window could be seen men hurrying home laden with parcels for the last Thanksgiving preparations, women behind lighted windows scurrying about icing cakes and putting touches to tables laden with silver and glass and the best china, while downstairs the dining room would be almost empty, for the boarders would one and all depart to homes or kindred for the following day—all but one—and that one left out of it all by choice. It was a bitter hour. But the long training in thinking through difficulties and coming out victorious asserted itself, and a firm hand switched on the light and found paper and pen at the writing desk. A brief letter was written and addressed to a nearby city. It contained only a few lines, but it was torn up and a telegram substituted. Tomorrow would be Thanksgiving, and the mail would never get there. The telegram was even more brief, though L. J. Fordham had no need to think of economy.

Then out into the storm to send the message that might have been telephoned to the office without that trouble. Somehow a battle with the storm seemed the only suitable vent to the emotions. The figure in the smart raincoat had no difficulty in hurrying to the office.

"If you are of the same mind, come to Thanksgiving dinner tomorrow," was the message read by the operator. "Seventy-five cents please. You've forgotten to sign your name."

With the pencil poised for a moment, and a thoughtful look the sender of the telegram hesitated. Then with a little sigh she affixed Lillian Jeanne Fordham to the message, instead of the crisp business signature she had prided herself on for years. L. J. Fordham was beginning to see that there are things in life besides high salaries and business deals. She walked homeward with a brisk step planning happily to rent a house somewhere, and give one person the Thanksgiving his heart had desired for years. It was 11:30, and besides she had, on request, to change her mind so often that there was no inpropriety in what she was doing. She even hummed a half-forgotten love song as she hurried homeward through the rain. As to the answer to the telegram she had not the slightest doubt, so there was nothing to do but to hustle about and get things in order.

THE landlady at the Select Family boarding house was persuaded to rent her dining room and kitchen for one day while she departed to visit her daughter and family. Miss Fordham with a tray of glowing jellies on her way to the dining room heard a conversation not intended for her ears, and though it was decidedly not complimentary she laughed as she listened.

"What dye think, Jim?" the school girl helper was saying to the yard boy, "we're to have all day Thanksgiving off! Yes, sir, the whole day off!"

"Aw, quit yer kiddin'!" said the incredulous Jim. "You ain't chloroformed old L. J. nor nothin' like that, have you? I've been here goin' on three years and we ain't never had time off."

"This time it's different, Jim," said Dorinda, the fat colored cook with a grin. "The old lady's got a bean, and she wants the house to herself so she can feed him. Awfullest layout of grub you ever saw! He'll be killed with kindness."

"There's something doing," said the girl with a wag of her head, "but I'll bet anything it's no man for L. J. Why, if I was a man I'd as soon marry a cash register as her—I would so."

Miss Fordham discreetly paused until the conversation turned to other topics, and then entered the kitchen. "Dorinda, do you think your daughter would like that rose party frock of mine that is a little tight for me? If so, I'll be glad to give it to her."

Dorinda rolled her eyes gracefully accepting the gift with voluble thanks, while Jim and Betty Jane hurriedly got it then late tasks. There must be some truth to the assertion that they were to have the day off, and they wanted to show how industrious they were. "And Betty," went on the lady with the jelly, "I've been thinking of sending my blue ensemble to the Wel-

fare, but maybe you could get into it for school."

Betty gasped a few times and said rapturously, "I'd keep it for best," Miss Fordham. "I'm sure I can wear it."

"Come up to my room," said Miss Fordham graciously. "I have some other little things that I'd be glad to dispose of."

The two hurried upstairs leaving Jim to droop as if his physical structure had caved in. "That's the way!" he growled. "Dorinda, you've always had it in for L. J., and said awful mean things about her, and look at what she does for you. And Betty Jane! Why, that girl has made fun of the old lady right to her face, and she'll look like the Queen of Sheba when she comes down. The women have all the rights in this world and everything else."

But Jim was able to stiffen up enough to get home safely when some crochets were placed in his hand. "If you need me, Miss Fordham, I'll come down tomorrow," he said eagerly. "I'm glad to do it! Thanks awfully!"

THE answering telegram did not come that night though Miss Fordham worked until midnight expecting every moment to see it arrive. But with happiness undimmed she settled herself in bed to sweet dreams and rose early to get at the real work of cooking at least a part of the enormous supply of raw material. By ten in the morning she was a little anxious, and inquired of the operator as to whether the message had been received. By ten fifteen she had her answer in her hand and looked as if the world was breaking up under her feet.

"Too late! Will explain later," the operator said. "That was all. For the first time in her healthy, active, poised, self-contained career Miss Fordham fainted. How long she lay in the shabby dining room lounge she did not know, but a pungent, burning odor evidently revived her and she gazed at the yellow scrap of paper. John Creighton was married, and he had said he would wait forever for her—Those turnips! She dragged herself to the kitchen to take a mess, and mechanically looked at the turkey browning to perfection. The lovely table set for two gave her a faint turn, and she opened the door to get a breath of fresh air. Then she regretted sending that telegram. Not for worlds would she had John Creighton know her real feelings. She would go back to the office and he L. J. Fordham to the end of the chapter. As she saw a potted spattered automobile apparently flowing with children stop at the door, she mechanically turned and walked to the door, or was about to, when some of the landlady's maids and relatives had dropped down unexpectedly she would give them a cold reception. She wanted to be alone with her buried hopes.

"Lillian! I came in person to explain my telegram," said a voice. "Brother L. J. passed away on a month ago. I promised him to take care of his motherless little girl. How can any girl accept of such a burden, foolish enough as you had chances and then it would be late to get out."

"John Creighton, have you lost your senses?" said Miss Fordham to past him. "I'm willing to accept the burden but a privilege. I've learned more during the past four hours than ever before in my life. I'm going right out to bring my children. I don't care how late they are."

(Continued on page 22.)

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You can carry out your most cherished plans to have a pleasant and well-kept house. By shopping at any one of our 1000 stores you save on every item. We operate the largest group of department stores in the world on the principle of giving you always the utmost for your money.

You spend much less! With what you save on colorful cre-

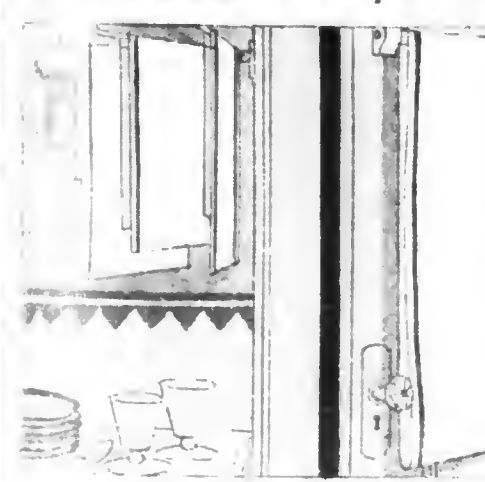
tonnes and lacy curtains, you can buy bath towels, sturdy kitchen towels, generous sized tea-towels—things you never have enough of. Yet you spend no bigger total.

All these extra values are the result of a 25-year-old policy. We select *only* articles of fine quality for our customers. We conduct each store so scientifically that our expenses are kept surprisingly low. Our Golden Rule policy passes these substantial savings on to you and gives you a *better article for your money.*



Imported Irish Linen damask—a remarkable value—70 inches wide, \$1.69 yd. Match napkins to match, \$4.69 a dozen.

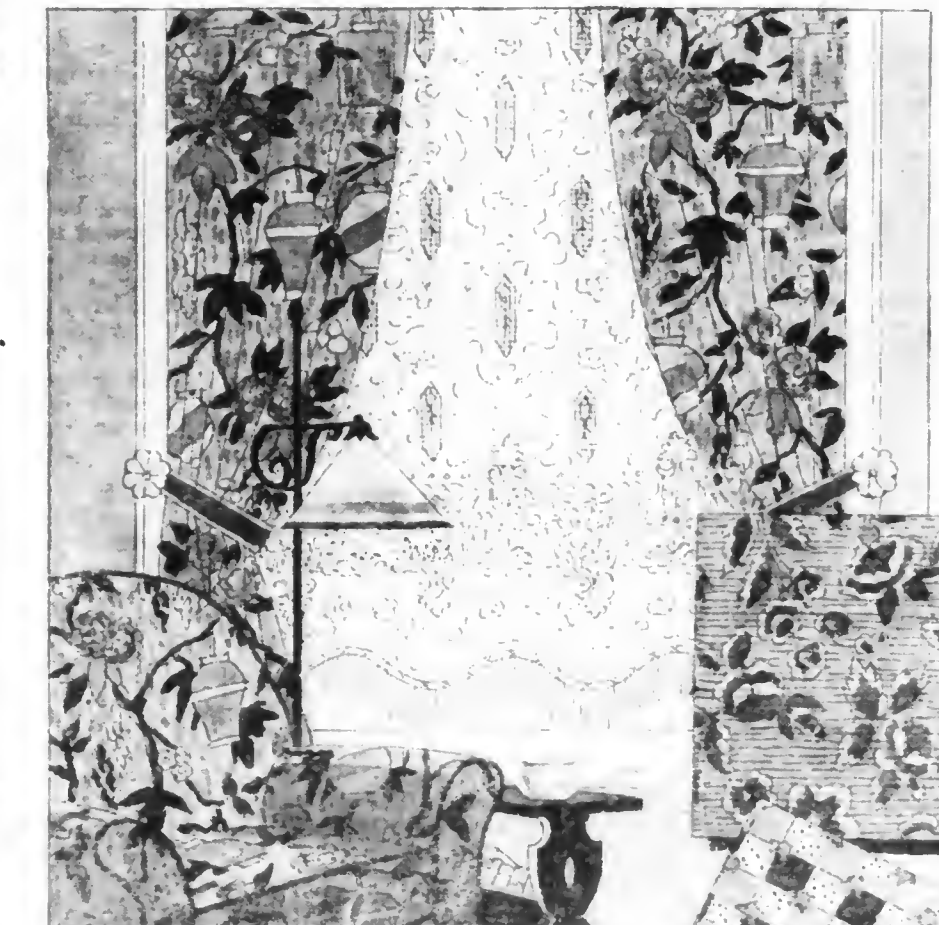
Permanently linenized damask, excellent quality, striking patterns, 89c yd. Heavy mercerized damask, 49c yd. Smart casual luncheon sets at modest prices.



towels for the roller and for the colored border toweling crash that with use. In bleached or unbleached pure linen, 19c yd.; part linen.



Bed or unbleached muslin many delightful and inexpensive Ramona cloth—linen finish 36 inch, 25c yd. Silver Moon smooth, soft finish, 19c yd.; muslin—fine and firm, 12 1/2c yd.



Glowing cretonnes are correctly used in city and country all the year round, in every room in the house. A wonderful variety of patterns at 29c, 19c, 15c yd.

Panel of shadow lace or sturdy filet net, scalloped fringed edge, \$1.98, \$1.49, 98c.

Trilly valance sets (not shown), ray with bands of color, including curtains, valance and tie backs, \$1.49 and 98c set. Made from novelty marquette.



Anywhere in the United States, you are near a J. C. Penney Company store.



Rayon bedspreads with silvery sheen; rose, copen, and other colors, \$3.98 and \$2.98; striped crinkle cotton spreads, \$1.49.

Snowy white sheets ready to use. In all sizes: Penco quality, 81 x 90 is \$1.39 and Nationwide quality, \$1.10; pillow cases, 35c and 27c.

To make up—perhaps with a bit of handwork or color—Penco sheeting 81 in. wide at 53c yd., and 42 inch pillow tubing 35c yd.

We Apply the Golden Rule to Business

The only right way to build a business, we believe, is on the Cornerstone of Values. You find better articles for your money in our stores. Naturally you are going to do your shopping there. That is how we have become the largest group of department stores in the world. We have grown by giving our customers greater values.

We have carried on our business according to the Golden Rule for 25 years. Today, over 1000 fine, progressive J. C. Penney Co. stores give you intelligent, courteous service. And our great size enables us to give you newer, better merchandise than ever. We have stores all over the United States. Visit the one nearest you if you would like to see for yourself how the Golden Rule works.

(Signed) J. C. Penney

J. C. PENNEY COMPANY, Inc.

Our enormous purchasing power gives you the highest possible quality at lower prices in any of our 1000 stores

L. J. Fordham's Thanksgiving

(Continued from page 20.)

John Creighton and Lillian Fordham were lengthening the table, and watching the turkey, and washing little faces and hands, and hunting big books to put on dining chairs and answering dozens of questions from lively youngsters when Mrs. Graham Forest burst into the dining room without ceremony. Mrs. Forest had been Lillian's best friend in high school days and this was her first visit home in years.

"My dear," she said breathlessly, "I just learned that you are in the habit of having Thanksgiving dinner here alone yearly with the family, and I've come to carry you off to Mamma's. I think you are the most absurd creature in the world to prefer a business career instead of a home, but you were such a dear, sensible girl years back that maybe somehow you will come to your senses. Mamma tells me that you even pose as a man in business by using only your initials instead of your own feminine name. I think—"

But what she thought was interrupted by the entrance of John Creighton swathed in a big gingham apron and with the carving fork in his hand. "Don't," he said, not seeing the visitor, "I think the turkey is done. I wish you'd show me how to mix the gravy. And, Lillian, I don't know what you'll say, but Tommy and Violet are jelly from car to car. That car—Well, bless my soul if it isn't Harriet Marshall!" as Mrs. Forest would have called out unnoticed. "What do you think, Hattie? Lillian is going to marry me and Brother James's five children just as soon as we can clean up the youngsters after dinner! For the first time in years I am going to have a real Thanksgiving."

"You! The efficient L. J. Fordham! The highest salaried woman in this town! Coming to your senses at last! John, you must be irresistible!" Mrs. Forest sat down helplessly to think over the news.

"And she proposed to me!" went on the grinning prospective bridegroom. "Leap year proposal!"

"I wonder if you could give a lucid account of the mental process you went through in arriving at this blessed state of mind," said Mrs. Forest, regarding her hostess with rapt attention. "How do these efficiency experts come down off their pedestals?"

"Let's have dinner. I'm starved!" broke in Tommy Creighton unmindful of his brilliant countenance and the quantity of currant jam and drop cakes he had consumed. "We can have the chin music after we eat."

Lillian Fordham should have been shocked, but she was not. "It's too long a story to tell," she said happily, "but I'll enlighten you this much. I saved an old lady's life last summer in a fire, and out of gratitude she brought me the materials for a big Thanksgiving dinner. The sight of the things that had once been prominent in the Thanksgivings in my old home made me so eager for a real home and folks and all that goes with real living, that I either lost my senses and sent for John, or else I found them. Time will tell."

"My dear," said he old chum solemnly, "you've just found them. And a very special blessing will be added to your life if you mother these orphans."

"Why, that's what the old lady said she would pray for that I might have a very special blessing," said Lillian happily. "Well, I'm getting it. Do you have to go, Hattie? Well, come back after dinner, and we'll have you be the best man or something at the wedding."

"No more such nonsense, L. J. Fordham," said Mrs. Forest firmly. "I'll gladly be the matron of honor, but John is the best man, and the bridegroom, and the head of the new family all rolled into one."

"I'm glad to be the unnoticed bridegroom on this happy Thanksgiving," said John Creighton, "bring some of

the old friends with you this afternoon. Hattie, I'll need somebody to convince me that I'm not dreaming."

"I guess the five children can do that," said Mrs. Forest. "Don't worry about the crowd. We'll all be present. I think myself it is a kind of accident, but I'm thankful Lillian will put off the L. J. forever."

Wool Market Review

Boston, Nov. 17.—The tone has been quite optimistic as the volume of business has been maintained on a number of the principal lines of domestic wools at strengthening prices, says the United States Department of Agriculture.

Fleece wools were not quite as active as during the previous week, but prices were firm at the advanced levels. Ohio 64s and finer declines sold moderately at 44c, in the grease. Strictly combing 58s, 60s, 62s wools were sold by a number of houses at 22c, in the grease. A fair demand was revealed for 50s, strictly combing bright fleeces at 56c and 57c was reported on one lot of choice wool of this grade. Strictly combing 48s, 50s and lower grades were slow.

The volume of business on the finer grades of territory and other western grown wools has been very good with some lines showing advances in prices. All classes of 64s and finer territory wools were moved at ranges of prices quoted, demand being strongest on the shorter combing staple. The combing classes of 58s, 60s were stronger.

The volume of business in foreign wools has increased. A number of small sales were closed on Australian merino wools, South American crossbred wools, both spot and for import have been fairly active at rising prices, some grades having advanced 20c, in the grease during the past week.

Domestic Wool Quotations

Grease Basis Ohio and Similar

61s, 70s, 80s, (fine) strictly combing	46c
64s, 70s, 80s, (fine) French combing	46c-47c
64s, 70s, 80s, (fine) clothing	28c-30c
58s, 60s, (1/2-blood) strictly combing	51c-52c
58s, 60s, (1/2-blood) French combing	45c
58s, 60s, (1/2-blood) clothing	43c-44c

An American Editor Abroad

(Continued from page 3.)

the women working for the glove makers of Grenoble. The water of the Isere is grey with limestone powder from the glacial mountain streams and this lime-impregnated water is the reason for the superiority of the leather used in the famous gloves of Grenoble.

"When Knights Were Bold"

We spent a night and a part of the next day in this old capital of Savoy, looking at the statue and the tomb of its hero, the good knight without fear and without reproach. The names of his captains or officers are all graven on the base of his statue as is the list of his battles. War was the chief end of man in the middle ages, for he died in battle as did his grandfather, great-grandfather and great-great-grandfather, while his father was so seriously crippled in fighting that he spent the rest of his life indoors. It was a holiday in Grenoble, so we could not see the museum, but we visited the old Roman church, now under ground, and saw its quaint carvings of the early days of Christianity. The world has made much progress since the day when this old church was new, but has not yet learned the lesson of peace which it has taught for so many centuries and the emblems of which adorn it.

Grenoble is the center of the English walnut industry in France. The trees are seen all through this region but

56s, (1/2-blood) strictly combing 56c
56s, (1/2-blood) clothing 51c
48s, 50s, (1/2-blood) strictly combing 54c-55c
48s, 50s, (1/2-blood) clothing 45c-47c
46s, (low 1/2-blood) strictly combing 48c-49c
36s, 40s, 44s (common and braid) 43c-45c
Wool stocks, in and about the United States on Sept. 29, totaled 349,816,279 lbs., compared with 357,107,458 lbs. on the corresponding date last year, states the Department of Commerce.

Pittsburgh Milk Prices

The Milkmen's Cooperative Sales Company announces the following net prices to dealers as the basis of payments to producers for 3.5 per cent milk delivered during October. District 1, Pittsburgh country plants and local f. o. b. markets, \$3.075 and \$3.825 per cwt. respectively; surplus \$2.185 and \$2.495. District 2, Youngstown,

Warren, Girard and Niles, not reported; District 3, Wheeling, Belhite, Martins Ferry and surrounding markets, not reported; District 4, Ashtabula and surrounding markets, \$2.91; District 5, Sagertown, Moore Bros. Co., and Otagoville, \$2.71; where inspection, \$2.81; at Fousville, H. W. Walker Co., Barnesville and Tech Food Products Plants, \$2.81; District 6, Sharon, Farrell and Sharpville, \$3.01; District 7, East Liverpool and Wellsville, \$2.93; District 8, New Kensington, Pannassus and surrounding markets, not reported; District 10, Butler, \$2.86; District 11, Kittanning and Oakmont, f. o. b. \$3.05; surplus \$3.185; District 12, Steubenville and Warton, \$2.76.

Price per gallon of basic milk f. o. b. Pittsburgh is \$0.3280; surplus, \$0.2147. The basic prices as quoted apply to 70 per cent of each producer's total production. The surplus price to the remaining 30 per cent.

Farm Conditions

Juniata Co., Central Pa.

Nov. 12: Weather fine for fall work. Some type being sown. Potatoes fine crop. Apples scarce, corn a medium crop. Chickens through the molt and ready to lay high priced eggs. Butter 40c, eggs 55c. Many fires of unknown origin, making the farmers uneasy. Teachers' County Institute from Nov. 12 to 16. Some farmers plowing.

Huron Co., Northern Ohio

Nov. 11: Fine fall weather. Late rains have helped the wheat. Some corn husking is being crowded along and the crop is better than expected. A little has been sold at 80c.

Lackawanna Co., N. E. Pa.

Nov. 13: We had quite a little flurry of snow on the 12th, followed by colder weather. Has been a pleasant fall. Potatoes a poor yield in many sections. Cabbage high in price, \$10 per hundred heads. Potatoes 80c per bu. Pomona Grange met with Clifton Grange on Nov. 1. There was a good attendance. Some grangers planned to attend the National Grange at Washington, D. C. Eggs 80c, butter 55c, sweet potatoes 50c pk.

Chautauque Co., S. W. N. Y.

Nov. 10: Up to Nov. 10 we haven't seen one real genuine Chautauque blizzard. Not even on election day did we get the squall that usually accompanies the event, though we had a few before. Consequently farm

work, road building and all other outdoor activities are quite nicely advanced. Prices are not materially different for the past several months. Potatoes 90c bush, apples 28c-29c, apples around \$1, butter 25c-26c.

Pendleton Co., N. E. W. Va.

Nov. 12: Fine weather for doing all kinds of fall work. Last Saturday morning we had our first snow, but it melted the same day. Shucking corn seems to be a little slow, owing to the fact that our section the corn was quite a bit bitten and has not thoroughly dried yet. A beautiful crop of watermelons but no market for them now. A few hams not sold yet because of the cold fluctuation. Prevailing price for hams \$11.50. Fat cattle about all sold. Better camps running full time. But a few in good condition. The chestnut crop is fairly good one and prices on chestnuts varied from 5 to 15 cents per pound. Public sales are prevalent and things sell at fairly good prices. A flock of ewes was sold at public auction last week for \$14.75 per head. Potatoes planted and not commanding a very high price. Wheat flour 85.75 per cwt., butter 29c, eggs 40c.

Tioga Co., Southern N. Y.

Nov. 10: October was the warmest years and also the driest. Several early rains the latter part but nothing to what was required to fill the springs and soil for winter. There was no killing frost until late in the month. The first snow squalls arrived on the 26th. Crops were exceedingly good, considering the cold season all the forepart of the year. Some corn came in like a lamb and the weather has been fine the most of the time. Many people use wood for fuel and plenty of it is being hauled to the villages.

Frederick Co., Northern Md.

Nov. 12: The past month has been one of the finest of the season for getting work done. Farmers have been busy plowing corn and finishing grain sowing. Grain up and looking good. Some late corn is plowing for next year's corn. Others are busy cutting wood. Butcherings were on. Late potatoes yielded in some instances poor due in part to the weather. The early part of the season picking is finished, crop not as good as last year but price is better. Sweet potatoes slightly better than they were a part of the season. Potatoes 28c-30c, eggs about 50c, poultry 28c-30c, \$12c-14, sweet potatoes 7c-8c, basket potatoes 8c-10c.

COMING EVENTS

Nov. 24-Dec. 1, Livestock Show, Land, Ohio.
Dec. 18, Inter. Rural Lumber Show, Chicago, Ill.
Dec. 15, Conference on Poultry, Palmer House, Chicago.
Dec. 17, Amer. Soc. of Poultry, Hotel Sherman, Chicago.
Dec. 18, N. A. S. P. Show, City, Cincinnati-Haddon Field.
Dec. 6, National Dairy Conference, House, Chicago.
Dec. 12, Baby-foot round, Fair Grounds, Mexico, Pa.
Nov. 26-28, Horticultural Week, College, Pa.
Dec. 37, Poultry Week, State College, Pa.
March 49, Herdmen's short State College, Pa.

EVENTS CAUGHT BY THE CAMERA



Copyright by Underwood & Looney

The world's largest horse-radish industry is in Hildesheim, Germany. Photo shows a horse-radish being its products to the market in the old by boat.

The first coal-burning locomotive and the "passenger coach" are still able to run. The "Atlantic," first coal-burning locomotive which entered Washington, D. C., on rails from York, Pa., where it was invented and manufactured in 1832 by Phineas Davis, a watch-maker, to the rear of the ancient engine is the "Atlantic," America's first passenger coach. In 1932

the old "crasshopper" locomotive will go through its original run as part of a 100th anniversary celebration. It still works.

3. The "amphibole," a unique new combination boat and auto which is propelled by the rowing motion of the occupants. It travels over land as well as on the water. The front wheels are used for steering purposes—on land and water—while the rear wheels are turned to provide the motion. Note the paddles on the rear wheels for water travel. The boat is fitted with air- and water-tight compartments which prevent its sinking.

4. Proving his prowess as police dog, "Toby" shows Miss D. Whittle's "Toby" of Bernese Mountain giving an exhibition of his marvelous jumping powers at the autumn meeting of the Alsatian League and Club of Great Britain.

5. Uncle Sam's sailors inspect one of the architectural beauties of ancient China at Peking. Photo shows a view of the impressive Temple of Heaven. This is one of the most popular show places of Peking.

6. An impressive silhouette of W. J. Blount, U. S. S. S. Pittsburgh watching the sun go down "China cross the bay." Blount is from Pittsburgh, Pa.

Farmer's Business Letter

THE hog market situation is not very encouraging to producers. Prices are below those being paid a year ago at this time, and last winter. In February and March, packers put pork in their cellars the average cost of which on the hoof was under 88. That does not necessarily mean that this winter's market will be as low or lower, but it probably will be unless receipts are relatively light. Packers won't pay any more for hogs than they have to. In this connection, it may be said that their profits this year are not coming up to expectations. The cheap pork they secured last winter has not been marketed as advantageously as appeared probable, and since the break in hog prices a few weeks ago, packers might with plenty of pork still on hand have suffered heavy losses.

Receipts of hogs have been fairly liberal so far this fall, and the market has been handicapped seriously by weakness of shipping demand. Since the first of September, Chicago has shipped east for slaughter 257,000 hogs, or 13.2 per cent of receipts, against 374,000 during the same period last year, or 29.5 per cent of receipts. According to reports received here the eastern markets have been well supplied with light and medium weight hogs. Some eastern packers, it is said, are being supplied by hogs bought direct from midwest producers. This has cut down competition on eastern markets and kept orders in the East that would otherwise have been sent West and had a favorable influence in the markets where prices are established for the entire country.

There is nothing in sight of a particularly encouraging nature so far as hog prices are concerned. It would take a rather sharp and sustained curtailment of receipts to boost the price level materially. This winter was looked forward to as a time of high hogs and low corn, but so far the tendency has been in the opposite direction, and packers may be wrong in their belief that hogs would come late and heavy.

Hog Prices Lower

The average price of hogs here this week was \$8.85, against \$9.25 last week, and \$9.05 for the same week last year. Average weight was 238 lbs., against a five-year average of 232 lbs. for the week. The supply of hogs offered was large and shipping orders were again light. Shippers took only 19 per cent of receipts, against 21 per cent the same week last year and 31 per cent two years ago. This makes a buyer's, or rather a packer's market, and they took advantage of it to force the price down.

Live hog markets received 659,000 hogs this week, compared with 641,000 the same week last year, 531,000 two years ago, 668,000 three years ago and 1,651,000 four years ago.

Fresh pork loins are wholesaling at 16½ to 22 cents, against 22 to 24 cents two months ago.

The Beef Outlook

Cattle receipts here this week were the second largest of the year, but were still less than the same time last year and two years ago. While there was a good demand for the best heavy and light steers, with both selling at \$18, in-between weights and plain quality kinds were forced to sell lower. Along with the common steers all butcher stock was lower. Bulk of steer sales this week were at a range of \$12.35 to \$16, against \$12.10 to \$15.50 a year ago and \$8.60 to \$11.50 two years ago.

Stocker and feeder trade held steady this week until the closing days when lower prices had to be accepted for the accumulated supply.

There is not much optimism in regard to winter beef prices. In the last four months about 200,000 more cattle have moved to the country for feeding than were taken out during the same period last year. This counts only those moving through public markets. The number that were shipped direct from range to feed lot is not known, but the general belief is that this movement has been larger than last year.

Last winter the extreme range of steer sales was \$9.75 to \$18.75. In December, it was \$12.25 to \$18.75; in January, \$10.50 to \$17.45; in February, \$10 to \$16.50; in March, \$10 to \$16.50. Prices are not expected to be as high this winter, and many of the steers coming to market now are showing losses.

According to the figures in feeder movement this year are still below the same period of last year. In December, 1927, 1928, and 1929, the number of head of cattle shipped from range to feed lot was 1,000,000, 1,000,000, and 1,000,000, respectively. Commercial growers in Pennsylvania report that over one-half of the crop will grade U. S. No. 1.

For next year. Another thing is that the keen demand for feeding stock resulted in an increased percentage of receipts going to the country and a decreased percentage to slaughter. There may also have been, again due to the strong demand, an increased movement of native cattle and cattle only wanted up in the feed lot back to the country, augmenting the total supply.

Lambs Lower

With greatly increased receipts of sheep and lambs this week over last week, prices were lower. Fat lambs lost 65 to 75 cents, yearlings 50 cents, and sheep were steady to a quarter lower. The average price of the week was figured at \$13.10, against \$13.20 last week and \$13.65 a year ago. The five-year average for the week was \$13.50. Fat western lambs sold up to \$13.75. This week, natives \$14.10 and feeders \$13.35. Feeder trade is light. A government report issued this week says that the movements of feeding lambs to November 1 into feeding areas in the Corn Belt and western states points to some decrease in feeding in the coming winter compared to the winter of 1927-28. A possible late movement of feeders into some of the western areas, however, may bring the total for that area above the November 1 indications and the total for the country up to that of last winter.

Shipments of feeding lambs passing through markets into the Corn Belt states were smaller in October this year than last. As a result of this decrease the total shipments for the four months, July to October, inclusive, were only about 100,000 head, or six per cent larger than for these months in 1927, and about 200,000 head smaller than for this period in 1928.

Reports from Colorado covering shipments into the state in October and early November indicate a reduction of about 300,000 head in the number of lambs to be fed this winter compared to last.

Grain Trade Liable

There was nothing exciting in the grain trade this week. Wheat lost a cent or two, corn gained about as much and oats were about steady. Determined to put some life into wheat trade Secretary of Agriculture Jardine came out with another

Potato prices made but little change during the week. Although the average price of Pennsylvania stock was somewhat lower in the eastern markets, the demand was slow and dealers found it difficult to move anything but well-graded stock. Philadelphia dealers state that unless the potatoes are above the average, both as to pack and condition, it is hard to get over one cent a pound. Montgomery, Bucks and Lancaster county potatoes were reported selling at \$1.20 to \$1.25 per 120-pound sack and small quantities of exceptional stock went to particular buyers at \$1.30.

The shipping point markets were steady with a slow demand. Green Mountains were quoted at \$1.05 to \$1.15 per 150-pound sack delivered in Philadelphia. New York state potatoes were selling at prices equivalent to about \$1.85 per 150-pound sack delivered in Philadelphia.

The apple market was dull during the week with a slow demand. Supplies were fairly liberal in Philadelphia and New York and the quality was irregular. Rome Beauty, Stayman, Delicious and Grimes sold mostly around 75¢ to \$1.15 per bushel. This stock was generally of poor to average quality and better stock brought \$1.25 to \$1.50. Fancy Rome and Delicious were quoted as high as \$1.75 in New York.

The November estimate indicated an apple crop in Pennsylvania of 8,000,000 bushels, at a price of \$1.00 per bushel. This is a decrease of 1,000,000 bushels from the October 1 estimate. The crop in the state for the year is estimated to be 8,000,000 bushels, or 100,000 bushels less than the 1927 production. Commercial growers in Pennsylvania report that over one-half of the crop will grade U. S. No. 1.

The egg market continued irregular. Fancy fresh eggs arrived in limited quantities in the wholesale market, as the supply is still light enough to be absorbed directly by retail and jobbing channels. However, the comparatively light receipts in the wholesale markets have not moved as freely as last week. On account of the high country costs nearly white eggs were held around 60¢ per dozen while mixed colors were held at 40¢ to 60¢ and at these prices they are showing a tendency to accumulate. The winter seasonable weather of the past two weeks undoubtedly has retarded consumption to some extent.

Fresh farm eggs also are being held in the Philadelphia market, and at these prices they are showing a tendency to accumulate. The winter seasonable weather of the past two weeks undoubtedly has retarded consumption to some extent.

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bullish statement on world conditions, his third in recent weeks. He had little to say that was new except with reference to the Canadian crop.

The downward revision of the official Canadian wheat crop indicates, he says, that effective millable supplies of Canadian wheat in that section may be less than that of last year. He refers to the estimate of 501,000,000 bushels, issued on Tuesday, and says that there is probably only 15,000,000 to 35,000,000 bushels more wheat than actually produced last year.

"Inspections to date," he says, "indicate that the increase will be more than offset by dockage and frost damage, the latter being more serious than anticipated. The seriousness of the damage is further borne out by the inspection from August 1 to October 31, which classified, shows five per cent feed, 14 per cent No. 6 and 15 per cent No. 5, a total of 34 per cent grading No. 5, No. 6 and feed, as compared with only six per cent last year.

"Should these percentages be maintained throughout the season, it would appear that milling equivalent of this crop would be reduced by about 50,000,000 bushels, on account of the amount going into feed and the lower milling value of the two low grades."

Mr. Jardine gave various reasons for believing the world wheat crop would be only five per cent over last season's and the world demand would be greater.

Horses Cheap

The horse market showed improvement this week, with the offering small. Only 160 head were on sale. Top was \$250. Bulk sold at \$100 to \$150, but real good horses move at this range. It doesn't pay to ship ordinary stuff. Horses are cheap.

Good Business

Favorable reports on general business conditions continue. Stock speculation is more extensive than ever before, and bank reports are filled with optimism. Unfilled orders of the United States Steel Corporation, usually a reliable business index, increased 32,492 tons in October, bringing the total at the end of that month to 3,751,000 tons. This is the fourth consecutive month in which tonnage on the corporation's books has shown an increase.

The Corn Belt farmer, however, feels that he is not sharing in this prosperity to any great extent. Hogs are cheap and many cattle and sheep feeders are losing money. Farm unrest has not ended. WATSON.

Chicago, Nov. 17, 1928.

Produce Market Review

The sweet potato market in Philadelphia was dull during the past week although prices of fancy New Jersey sweets showed but little change. The warm weather was partly responsible for the lack of demand. Another factor that influenced the market was the fact that Maryland and Delaware stock sold at \$16 to \$17 per bushel. Some buyers were taking this stock in preference to the higher priced New Jersey offerings. Offerings of Virginia sweets were lighter in New York and most of the offerings were ordinary. New Jersey sweets held steady at unchanged prices. The best stock from the Swedesboro section sold at \$15.50 to \$2.25 per bushel hamper.

Spinach was plentiful with receipts from Pennsylvania, New Jersey and Maryland. At the close of the week most sales ranged from 25¢ to 60¢ per bushel. Hubbard and turnips were dull but pumpkins were scarce and sold at \$6 to \$7.50 per barrel. Pennsylvania celery met a fair demand and sold at steady prices.

Eggs and Poultry

The egg market continued irregular. Fancy fresh eggs arrived in limited quantities in the wholesale market, as the supply is still light enough to be absorbed directly by retail and jobbing channels. However, the comparatively light receipts in the wholesale markets have not moved as freely as last week. On account of the high country costs nearly white eggs were held around 60¢ per dozen while mixed colors were held at 40¢ to 60¢ and at these prices they are showing a tendency to accumulate. The winter seasonable weather of the past two weeks undoubtedly has retarded consumption to some extent.

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Dr. Havner Resigns

THE many friends of Dr. H. H. Havner, who has done much to promote the livestock industry of Pennsylvania, will regret to learn that he retires from his present work at the end of this year. Dr. Havner has been elected vice-president in charge of service of Philip R. Park, Inc., manufacturer of stock feeds which include nutrients and minerals distributed from the sea. For some years Dr. Havner has served as our Veterinary Editor, with much satisfaction to our readers. He will retire from that service at the end of this year. His thousands of friends will wish him every good thing in his new work, which is in keeping with much of his past teaching and demonstration in animal nutrition.

Selected extras were quoted at \$100 with a few lots bringing a premium.

The Turkey Trade

Considerable quantities of Pennsylvania New Jersey and Maryland live turkeys arrived in Philadelphia the past week and while the holiday trade was delayed by the hot weather dealers were selling around 40¢ per pound for the best birds. In the opinion of many dealers the outcome of the turkey market will be largely dependent on the weather. Continued warm weather would undoubtedly reduce shipments of dressed birds from Maryland and Delaware, due to the absence of adequate processing facilities. Dealers are now unwilling to buy outright at the shipping points on account of the relatively high prices prevailing and so far much stuff has been reported selling on consignment. This is expected to stiffen the market for nearby turkeys. The situation is uncertain but large operations predict prices of around 50¢ to 60¢ per pound for the best nearby dressed turkeys by the end of the week. Prices were quoted unchanged with buyers purchasing for immediate needs only. While there was a weakening of the market the demand was less active. W. L. W.

INTERNATIONAL ENTRIES

Entries at this year's International Livestock Exposition, to be held at Chicago, Dec. 1-8, include the following numbers:

Breed	Number
Shorthorns	44
Herefords	32
Aberdeen-Angus	29
Red Polls	27
Galloways	25
Polled Shorthorns	122
Grades and crosses	149
Shropshires	130
Hampshire sheep	135
Oxfords	65
Lincolns	53
Southdowns	89
Cheviots	77
Dorsets	64
Leicesters	27
Rambouillets	122
Corriedales	6
Grades and cross-bred sheep	167
Berkshires	107
Poland Chinas	107
Duro Jerseys	107
Chester Whites	210
Hampshire hogs	107
Tamworths	107
Yorkshires	107
Poland Chinas	107
Devon Cons	107
States	107
Rams	107
S. J. P. P.	107

The above list does not include those show and feed lots of cattle, sheep and hogs entered in the regular classes.

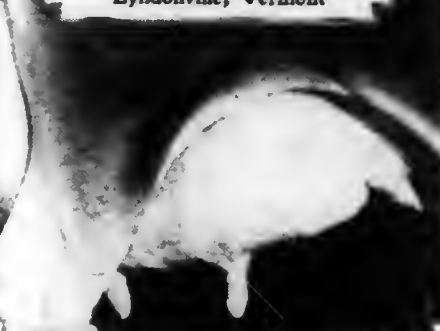
GUARD—Udder and Teats



Don't risk production losses—for any loss of the milk-producing organs, be it ever so slight, use this famous ointment for prompt results. Bag Balm is a scientific combination of healing ointment and penetrating antiseptic oil. The healing virtues of the medicated ointment are carried into the tissues by the vigorous penetration set up by this remarkable oil-greased—made exclusively by our own process. Bag Balm is really liniment and ointment in one.

For all cuts, chaps, cracked teats, depend on quick, thorough healing—often between milkings. For inflammation, Caked Bag, Bunchees, Cow Pox, etc., Bag Balm has for years been the relief of careful cow owners.

Big 10-ounce package, 60¢ at drug, feed, hardware and general stores. If dealer not supplied, we will mail postpaid. Booklet "Dairy Wrinkles" free. Dairy Association Co., Inc. Lyndonville, Vermont



THE BENJAMIN FRANKLIN HOTEL PHILADELPHIA

At Ninth and Chestnut Streets, in the heart of the city, the Benjamin Franklin Hotel is the center of commercial Philadelphia. Convenient to theatres, rail stations, all of the great banking institutions, stores and publishing houses.

300 Guest rooms, facilities appointed, fine restaurants, Superior Banquet and convention facilities. Rates commence at \$10 per day.

HORACE L. W. WIGGINS, Standing Room

BARGAIN Combination Offers

CLUB No. 100
Pennsylvania Farmer ... 1 year
Everybody's Poultry Mag. ... 1 year
Farm Mechanics ... 1 year
Household ... 1 year
All Four Only \$1.00

CLUB No. 37
Pennsylvania Farmer ... 1 year
Mothers Home Life ... 1 year
Home Friend ... 1 year
Peoples Home Journal ... 1 year
All Four Only \$1.00

Send all Orders to
PENNSYLVANIA FARMER
7301 Penn Ave., Pittsburgh, Pa.

Livestock Markets

PITTSBURGH

Cattle

Monday's supply was about 75 carloads and included about all kinds, for this is cleanup time in the grazing country. The comparatively small proportion of good fat steers sold at about former prices but others sold a quarter lower. Three carloads brought \$14 per cwt., one of them weighty grassers that had eaten some corn on pasture and the others well-fed yearlings. A few weighty steers sold at \$13.75 and a few at \$13. Good heavy-weight butchers steers went at \$12 to \$12.50, but only a few of that kind appeared. Fair butcher steers sold at \$11 to \$11.25 and ordinary kind at \$10.25 to \$10.50, with a few lacking both quality and flesh \$9 to \$9.50. No choice feeders were offered, a few ordinary sort selling at \$10 to \$10.50. Good fat heifers were about steady, selling at \$10.50 to \$11 per cwt., with an occasional choice heifer more. Common heifers looked lower. Good fat cows were generally unchanged, a few choice animals going at \$10, but sales above \$9 rather scarce. The other end of the cow market, canners, brought \$8 to \$8.25 largely, a few old shells down to \$4.50 and a little better than ordinary canners up to \$5.75. Bulls showed little change, with \$10 in sight for something choice and bulk of sales at \$8 to \$9.50.

Choice grain-fed steers, 1,200 lbs. or over, \$13.50 to \$14.50. Good to choice, 1,000 to 1,200 lbs., \$13.00 to \$13.50. Fair to good, do., \$12.00 to \$13.00. Plain heavy steers, \$10.00 to \$12.00. Choice heavy-weight steers, 1,000 to 1,200 lbs., \$12.00 to \$12.50.

Fair to good, do., \$11.25 to \$12.00. Ordinary to fair, do., \$10.00 to \$11.25. Common, do., \$9.50 to \$10.25. Good light butcher steers, \$11.50 to \$12.25. Fair to good light steers, \$11.00 to \$11.75. Common to medium, do., \$10.50 to \$11.50. Inferior light steers, \$8.00 to \$9.00. Stockers, \$7.50 to \$10.00. Choice heavy butchers, \$9.50 to \$11.00. Good heavy butchers, \$9.25 to \$9.75. Fair to good butchers, \$8.75 to \$9.25. Common to fair butchers, \$8.00 to \$8.75. Inferior butchers, \$7.00 to \$8.00. Good fat heifers, \$11.00 to \$11.50. Good to choice heifers, \$10.50 to \$11.00. Fair to good heifers, \$9.50 to \$10.50. Common to fair heifers, \$8.50 to \$9.50. Thin light heifers, \$7.00 to \$8.00. Choice fat cows, \$9.00 to \$9.50. Good to choice fat cows, \$8.50 to \$9.00. Fair to good cows, \$7.50 to \$8.50. Common to fair cows, \$6.50 to \$7.50. Canners and cutters, \$5.00 to \$6.00. Fresh cows, calf at side, \$5.00 to \$15.00.

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Let's all be thankful!



When Thanksgiving Day comes next Thursday just stop and think how much each and every one of us have to be thankful for. Compare your life with that of the Pilgrims on the first Thanksgiving Day — 307 years ago!

You only need to compare the many wonderful conveniences now in our "Farm Service" stores, to what we had only a few years ago to see the difference. Think how the milking machines, cream separators, water systems, electric and power devices we have for you can save time and hard work. What a difference in the home, too, with vacuum cleaners, power washing machines, modern cooking stoves and the marvelous radio!

We "Farm Service" Hardware Men are thankful in many ways too — but most of all we're thankful for your patronage and friendship and for the privilege of serving you.

Your "Farm Service" Hardware Men

P. S. See us about the cooking utensils, cutlery and extra silverware you will need for the Thanksgiving dinner.

Your Farm Service HARDWARE STORES

Look for the "Tag!"

The MARKET PLACE

By W. R. WHITACRE

MOST all of us have dropped a penny in a slot machine and have had an undersized portion of chewing gum drop out. We have dropped a nickel or a dime in a slot and had the privilege of talking with a friend over the phone. These automatic salesmen are handling a wider variety of products and in many cases are proving very successful.

In some cities you may now drop a nickel in the slot and have your shoes brushed and for varying sums may receive a paper cup, a handkerchief, a comb, a towel and a cake of soap, a tooth brush, stamper, cigarettes, candy, nuts or may even hear some form of canned music. In one railroad station a machine has been installed that with the payment of a dime sprays perfume on the purchaser. One chain of restaurants uses these automatic salesmen to sell food. As you walk along a long row of glass cases you see the food in little glass cabinets and when you drop sufficient money the door springs open.

One of the latest slot machines, and the one that is the most interesting to farmers is the apple vending machine. This machine works on the same principle as the chewing gum machine and has had a year's trial in the West. This season they will be operated in San Francisco, Los Angeles, Chicago and Detroit. The tests made in Chicago and Seattle last winter demonstrated that people will readily buy apples from vending machines. If the use of this device should spread it would have a tendency to increase the consumption of apples.

DURING the first week of this month a meeting of potato shippers and dealers from many leading producing sections was held in Chicago to discuss plans for improving the potato industry. All phases of growing and selling potatoes were discussed and practical suggestions resulted. Some of these were: That the handlers of potatoes in all sections should make a study in their sections in view of improving grading.

That growers and shippers ship only potatoes grading U. S. No. 1 and that all potatoes should be free from dirt or other conditions that detract from their appearance.

That federal and state inspection should be secured whenever possible at shipping points.

That the United States Department of Agriculture should cooperate in this work and should aid in educating the public as to the food value of potatoes.

That all agencies such as county agents, state colleges and commercial organizations aid in distributing publicity concerning the food value of potatoes.

Some of the dealers expressed the opinion that the campaign during war time to substitute rice, beans or other such foods for potatoes had had a lasting influence and that a campaign of advertising should be started to bring out the desirability of the potato as a food.



These suggestions are practical and if the potato growers and dealers get together they can undoubtedly accomplish something worth while. One of the chief difficulties in an advertising campaign for a product such as potatoes is it is hard to raise funds, as every one concerned figures that it is a good thing but the other fellow should pay for it.

Unthrifty Sheep

B. R. T.—"What can I give my sheep for a bad cough? They run at the nose. What will kill worms in sheep?"

These sheep have stomach worms and very likely too a rather bad infestation of nodular worm or nodular disease. In a former issue of The Stockman, under this department, will be found information on drenching sheep. Better get the help of an experienced sheep man or your veterinarian if you have not had previous experience in drenching.

H. H. H.

Friendly Talks

By Edgar L. Vincent

AWAY up on one of our hill-side pastures in the spring of the year a few seasons ago we found some of the nicest white clover growing. So far as we knew no white clover seed had ever been sown there. One thing we had done, though, and that was to cut off the brush, briars and weeds which had grown there for no one knows how long before we bought the place. That let the sunshine in. The warm rains could moisten the earth better; and this must have put new life into the white clover seed, which no doubt had been grown there in some day long past. So now what was once a brush lot is our choicest pasture. Here the sheep and cows like to graze best of anywhere. And ever since the change came this field has been a constant joy to us.

A Bit of Sunshine

In our neighborhood once we had for a short time a younger man and his wife. They had one little girl. I will not say much about the father and mother, but that little girl was one of the sweetest little ones I ever saw. So far as I know she never had tantrums. Her loving ways won the hearts of everybody and we were all sorry when these people moved away. It seemed as if some of the sunshine had gone out of the neighborhood. Somewhere, sometime, somehow this baby girl had been given a nature that was like a little bit of heaven. It was the story of the old hilltop pasture over again.

I like to think what a blessed thing it is to sow seed that will make this old world a brighter, better place in which to live. We can all do it. The better furrow we plow, the finer seed we sow, the good will and the kindness we put into our lives will never lose its power. Sometimes, maybe long after we are gone, it will come up and bear fruit. He who watches will see to that part of it; all we have to do is to sow and do our work faithfully and the rest He will look out for.



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The safe and simple way to get genuine old hickory flavor in your winter meat supply during cure. Year after year a million users prove it.

The original and genuine smoked only by THE SMOKED SALT COMPANY 445-465 Culver St., Cincinnati, Ohio FREE BOOKLET on request

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We are offering FUR SHIPPERS

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Ford Power Plants

George Soroka & Co.
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199 Wright Street, NEWARK, N. J.
References: Hawthorne Ave. Trust Co. N. J.

WANTED—Farm Products
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SKUNK, MUSKRAT,
COON, MINK, OPOSSUM,
FOX, WEASEL, WOLF
and all other furs in big demand. We pay express and parcel post charges. Be sure of highest prices: write for price list now.

BENJAMIN DORMAN
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SKUNK

Coon—Mink—Foxes—Coyotes—Lynx Cats Badgers in Big Demand. We have been collecting since 1890 and are now a little proud of the reputation we bear among our shippers from coast to coast. Shipments held separate on request.

JAS. P. ELLIS, 36-32 Mill St., Middletown, N. Y. In the way we grade our furs we grow. Reliable price list sent free.

WILLIAM BIVINS SUMMIT, N. Y.
TRAP TACKS with wire.

Copper or aluminum. Your name and address stamped in each tag. Prices: 20 tags, \$5.00; 40 tags, \$10.00; 100 tags, \$20.00, postpaid. Order NOW—each tag waits for you today.

SKUNKS
and all other furs wanted. In business thirty-two years. Write for price list.

CHARLES A. KAUNE, MONTGOMERY, N. Y.
102 Bridge St.

Classified Department
WANTS—For Sale or Exchange

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Address all orders to 7301 Penn Ave., Pittsburgh, Pa.

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BAGS.—We buy your empty bags at good prices. We also manufacture and sell new or second-hand burlap bags. Write for price list today.

WE PAY HIGHEST PRICES for empty bags. Write for price list. Pittsburgh, Pa. and Burlap Co., 509 Progress St., N. S., Pittsburgh, Pa.

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WANTED.—Raw Furs, Ginseng, Beaver Castors, Mink, Racoon, etc. Will sell traps, guns, trappers' outfit, retail at wholesale prices. Free literature. Write for price list. N. S., Pittsburgh, Pa.

TOBACCO
GUARANTEED HOMBSPIN TOBACCO.—Chester 2 pounds \$1.25; 10-lb. \$10.00. Write for price list. Pay postman. United Farmers, Bardonia, N. Y.

DOGS
PEDIGREE COLLIE and Fox Terrier dogs handsome and intelligent. London Kennels, Grove City, Pa.

COLLIE PUPS—Either sex, \$2.00 C. O. D. Both bachelors, Mahanoy, Pa.

Veterinary

By Dr. H. H. HAVNER

Spider Test
B. O. D.—Is there anything to keep the teats of a cow from spluttering the milk?

There are two things that can be tried. I say tried, because that is what it amounts to. Perhaps less than half the cases of this kind will improve. The things to try are the use of a lead teat plug which can be tied in position. Another is to use a teat splitter, which is a special instrument looking somewhat like a milk tube. The inner lining of the teat is slit through in three to four different places. It is a wise thing to let your veterinarian do the cutting for you.

Horse with Brittle Hoof
W. F. M.—We have a horse which has a brittle or rotten foot which we cannot keep a shoe on. The horse is lame when shoe is not on. Can you advise any treatment to remedy this trouble? The trouble we are having is with one rear foot. All others are all right except they do not hold shoes as well as some animals.

About the best you can do is to keep the feet soaked up well and particularly in the case of the worst affected foot to soak for a seven-hour period in a solution of one of the standard stock dips. Use one and one-half parts of dip to 100 parts of water and make a strong box out of two-inch stuff. The box then can be placed in the rear of the stall with say four or five inches of dip solution in box. Regular soakings may help somewhat, although it is a fact that you are greatly handicapped because the hoof condition is an inherited weakness.

SHORT WINDED
W. H. K.—I would appreciate information in regard to one of my horses which has trouble with his wind.

The horse has a short dry cough which is more severe at times. He has difficulty with his breathing. He seems to be "tight," causing him to labor when he breathes in air. He does not discharge any matter from the nostrils as is the case when one has a bad cold. He pumps very slightly almost not noticeable, as is the case when a horse is affected with hooves. The horse has been this way for about three months. His condition otherwise seems to be excellent. His age is 12 years.

This horse has probably been overheated at some time and will in warm weather continue to pant or breathe heavily. Not a great deal can be done to improve such a condition. During very warm days the horse should be rested as frequently as is found practical and it would be still better if he would not be put to work on very hot days. During the fall, winter and early spring, you will no doubt find that this animal will do as much work as any horse. Use a grain ration mainly of corn with a handful of oilmeal at each feed or a mixture of five parts corn, one part wheat bran and one-half part oilmeal by weight. Give the horse on his grain feed three times a day for a ten-day period or two week's period a tablespoonful of a mixture of one pound Glauber salts, one-half pound soda, two ounces of nux vomica and two ounces powdered gentian.

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COLLIE PUPS—Either sex, \$2.00 C. O. D. Both bachelors, Mahanoy, Pa.

RAW FURS
WANTED.—Raw Furs, Ginseng, Beaver Castors, Mink, Racoon, etc. Will sell traps, guns, trappers' outfit, retail at wholesale prices. Free literature. Write for price list. N. S., Pittsburgh, Pa.

TOBACCO
GUARANTEED HOMBSPIN TOBACCO.—Chester 2 pounds \$1.25; 10-lb. \$10.00. Write for price list. Pay postman. United Farmers, Bardonia, N. Y.

DOGS
PEDIGREE COLLIE and Fox Terrier dogs handsome and intelligent. London Kennels, Grove City, Pa.

COLLIE PUPS—Either sex, \$2.00 C. O. D. Both bachelors, Mahanoy, Pa.

CHIX AND POULTRY

WHITE LEGHORN EGGS AND CHICKS—Big discount if ordered now for spring shipment. Sired by 200 to 300 egg makers. Eggs 20 cents. Winners at 20 egg contests. Shipped c.o.d. Catalog, special price booklet free. Thousands of pullets, hens, cockerels at low prices. George B. Ferris, 980 Union, Grand Rapids, Michigan.

ALL CHICKS from breeders B. W. D. tested or New England Accredited. Leghorns, Reds, Harred Rocks, White Wyandottes, for spring delivery. Special prices now on Reds and Rocks for winter broilers. Free circular. Hall Bros., Box 61, Wallingford, Conn.

TURKEY PRICES, \$5.00; gobblers, \$10.00; Geese, \$5.00; Ducks, \$3.00; Guinea, \$2.00. Easy chicks cheap. Free circular. Edwin A. Souder, R. 1, Sellersville, Pa.

FOR THE HOME
100 ASSORTED dishes packed as first quality consisting of cups, saucers, plates, bowls, cutlery, etc. All useful. Slightly imperfect. \$5.50, prepaid. Send money to us for immediate shipment. Home China Co., Mills, Mass.

HONEY—Chunk comb and extracted. White, five-pound pail, \$1.25. Dark, \$1.10. 60-lb. can delivered, \$2.00 and \$5.00. Postpaid. Ed Mitchell, Castalia, Ohio.

YARN—Virgin wool; for sale by manufacturer at bargain. Samples free. H. A. Barlett, (Dept. P.), Harmony, Maine.

HARVEST of slightly damaged Cockerly, Hotel Chalmers, Cookware, Glassware, Pottery. Write Swasey Company, Portland, Maine.

HORSES
OUR BELGIANS were consistent winners at the State Fair this fall. For sale, a four and two-year-old mare in foal to our Champion Stallion. Also a roan and sorrel filly. Write for prices or better come and see. Hyilmere Farm, Beaver, Pa.

FOR SALE—Nineteen hundred pound three-year-old registered black Percheron mare of quality and regular breeding. Write for price or arrange for visit. Hyilmere Farm, Beaver, Pa.

FORTY PONIES—All ages and sizes. Fred Stewart, Lanesville, Pa.

ALFALFA
HAY—All kinds, alfalfa, clover, timothy and mixed. Delivered prices. Harry D. Gates Company, Jackson, Michigan.

PATENTS
PATENT-SENSE—Valuable book (free) for inventors seeking largest desired profits. Lacey Taylor, 753 P. St., Washington, D. C. Est. 1899.

SALESMEN
EVERY HOME A PROSPECT.—Make big money: employ crew; sell dependable tires, shrubbery, etc. or part time; landscape service; experience not essential; full compensation; commission paid weekly. We deliver, collect. Write Williams Some Nurseries, Desk F, Rochester, N. Y.

SALESMEN to sell our high-grade garden and field seed direct to planters. Good position with big income. Experience unnecessary. Cobb Co., Franklin, Mass.

WANTED
WANTED.—Farmer or farmer's son or man travel in country. Steady Year-round work. McCann & Company, Dept. F-2711, Winona, Minn.

EARN CHRISTMAS MONEY and build a permanent home. Spare time work near home; not house to house. Connecticut Can Co., Dept. 103, Hartford, Conn.

HELP
EXPERIENCED General Farmer wanted, to work on percentage basis. References exchanged. Inquire Louis Lipowitz, Cranberry, New Jersey.

HAY AND GRAIN WANTED
WANTED.—Hay, Straw, Potatoes, Apples, Cabbage, Grain, Buckwheat, Carrots. Pay highest market prices. The Hamilton Co., New Castle, Pa.

FUR BEARERS
MAKE BIG PROFITS with Chinichilla Rabbits. Real money makers. Write for facts, 848 Conrad's Ranch, Denver, Colo.

FERRETS
FERRETS for driving rats Rabbits and other game from their dens. White or brown, males \$4.50; females \$3.00; pair \$9.00 c.o.d. J. E. Younger, Newton Falls, Ohio.

FARM LAND

PENNSYLVANIA

PENNSYLVANIA FARM—175-acre limestone farm of J. B. Smith heirs, Riders Ridge, Indiana county, Pennsylvania. Well improved. Good investment. E. B. Smith, R. 1, Box 34, Avonmore, Pa.

FOIL SALE—Farm of 131 acres lying between two State Highways. Near city. Good soil and excellent buildings. Soft spring water piped to house and barn. Price \$13,000. Easy terms. Write or see D. H. Fisher, Greensburg, Pa.

WHEAT WANTING TO BUY or sell property, don't fail writing to the Real Estate Specialist, 19 North 15th St., Harrisburg, Pa.

MISCELLANEOUS LANDS
IN THE SAN JOAQUIN VALLEY of California general farming is a paying business, feeding millions of people in towns and cities. Alfalfa combined with dairying, horse and poultry, yields a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin Valley folder and get our farm paper—"The Ranch" free for six months. G. L. Seagraves, General Colonization Agent, Santa Fe Railway, 818 Railway Exchange, Chicago.

\$500 SECURES 60 ACRES and 1,100 fruit trees, crops, tools. Hunter should make this farm worth hundreds of dollars an acre: near railroad village and markets, good 7-room house, cement cellar, lights, good barn, farm buildings; 45 acres fine varieties apples, peaches, other fruit. Owners sacrifice, your opportunity: only \$1,500 with implements, poultry, shelled peas, 25 bu. potatoes, apples, several bu. sweet potatoes, cabbage, 100 bu. corn, hay, firewood (wooded in only \$500 cash). Picture and details page \$2 big illustrated catalog. Free. Strout Agency, 1822-28, Land Title Bldg., Philadelphia, Pa.

LIVE GOOD WHILE MAKING A GOOD LIVING on the Del-Mar-Va Peninsula. Low-priced, productive land, town and waterfront homes. Three to ten hours to largest Eastern markets by motor or Pennsylvania Railroad. No snow. Little freezing. Fine concrete highways. Hand-some descriptive booklet. Free. Address 148 Del-Mar-Va Building, Salisbury, Md.

SHACRE FARM, stock, tools and crops for \$8,000, half down. Land slightly rolling with well and creek; 16 cows, 3 horses, riding cultivator, etc., with house and barn, occupied by owner, one mile from improved road. Claude A. Nichols, Chittenango, N. Y.

SEEDS AND NURSERIES
PEACH AND APPLE TREES \$5.00; \$7.50 per 100 and up. Complete assortment fruits, berries, ornamental trees, vines, shrubs, evergreens. Catalog in colors free. Tennessee Nursery Company, Box 125, Cleveland, Tenn.

WILSON'S BLACK SOY BEANS, \$2.00 bushel. Virginia Brown soy beans, \$2.00 bushel. New crop, reconditioned. Bags 12c each. Cash with order. Will be higher sure. Joseph E. Holland, Milford, Delaware.

FOR SALE—Certified seed potatoes, grown in Highlands of Potter County. The cool climate produces vigorous, high-yielding seed. Paul R. Smith, Clydesse, Pa.

MISCELLANEOUS
DO NOT EXPERIMENT with Your Cows. Horses, Swine, etc. Breeds Remedies have been used for Forty-Eight Years. Mr. Chase, S. A. Houts of Lehigh, Pa., says:—"Your remedies proved a Success. I am a satisfied customer." Remedies for Cattle, Horses, Swine, etc. Write for free literature. Failure to breed, Milk Fever Outlets \$3.00. Fly Spray, etc. Information and Booklet Free. Breed-0 Remedy Co., Box 2249, Bristol, Conn.

WHY BLAME THE BULL when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back: 85 cents for one cow, \$2.00 for five cows, postpaid. Woodstock Farm, Route 2, Box 50-C, Henton, Washington.

ROOFING PAPER—3-ply, \$1.35 per roll, 100 square feet. Prepaid. Asphalt shingles, roof coating, paint. Send or price list. Winkler Bros., Mills, Mass.

PRINTING, Letterheads, Noteheads, Statements, Cards, Envelopes, Billheads, \$2.95 per thousand. Ward & Ward, 629 Frankstown Ave., Pittsburgh, Pa.

FED WATSON'S TANKAGE—It is safe and clean. 45% protein, \$3.00 per hundred pounds. Mail orders filled promptly. Watson's Rendering Plant, Allenwood, Pa.

IF YOU HAVE ANYTHING you want to buy, sell or exchange, ADVERTISE in the classified columns of Pennsylvania Farmer.

LOOK
next week: eliminating tuberculosis from a poultry flock

LOOK
LOOK! THAT LUMP ON YER HENS' NECK. SENACHARIOS. AIN'T THAT A SIGN O' T.B.?

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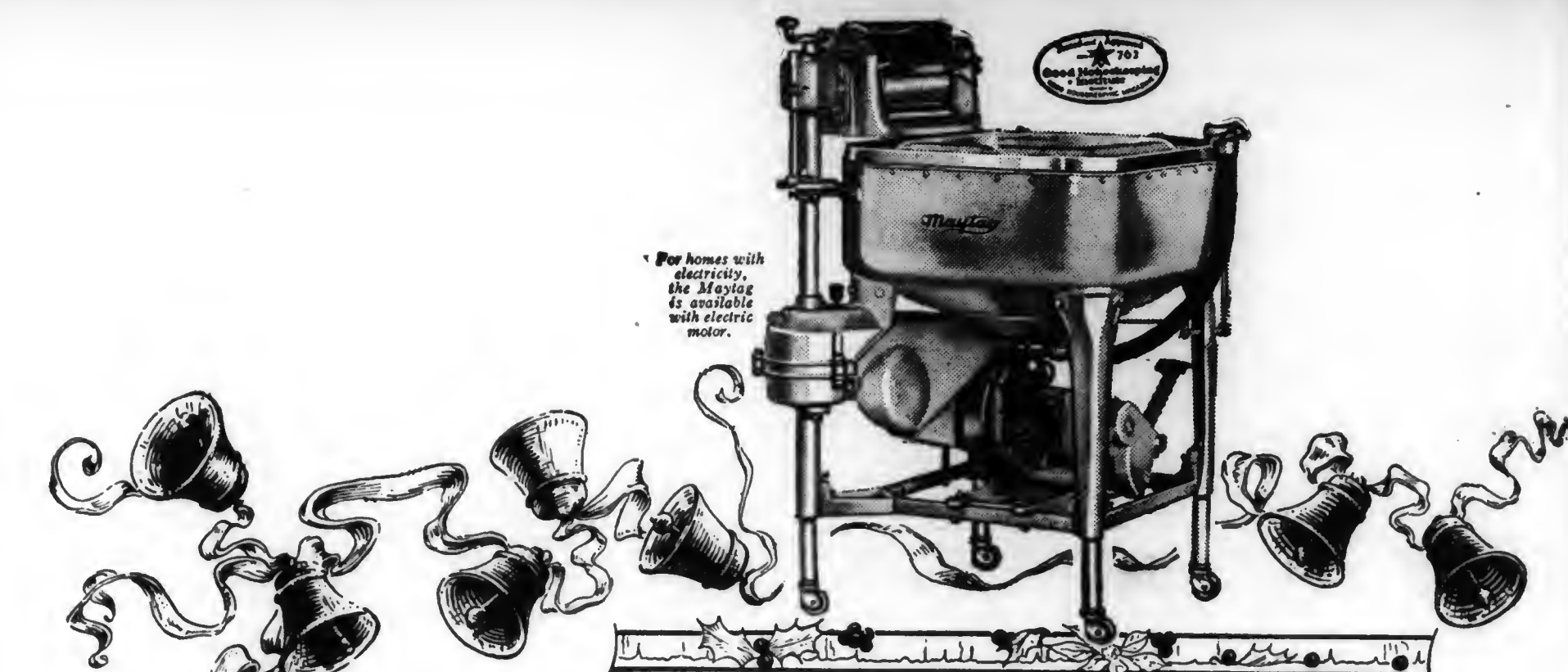
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For homes with electricity, the Maytag is available with electric motor.

The Gasoline Multi Motor

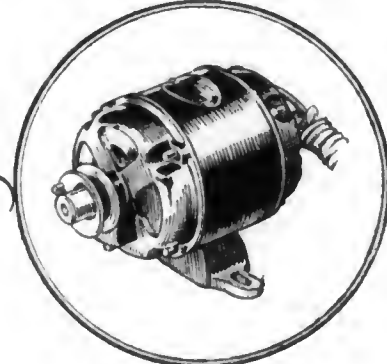
Interchangeable Power

Fifteen years development have given the Maytag Multi-Motor reliability and endurance. See how simple and compact this engine is. It is the only engine built for a washer by a washer company. Only Maytag washers have it, and the demand makes the Maytag Company the world's largest manufacturers of single-cylinder gasoline engines.

You will be amazed at the smooth, steady flow of power—always ready at a thrust of the foot lever. There are no belts to line up. It is a part of the washer.

The best of materials and workmanship are used throughout this engine. It has Bosch high-tension magneto and speed governor. The bearings are high-grade bronze. The carburetor is flood-proof.

The Electric Motor



Maytag Helpfulness is a Lasting Joy

HAPPINESS is the spirit of the holidays—friendships are dearer, hearts lighter and voices merrier.

There is no better time to get that Maytag you have been planning for. It will bring happiness week after week for years and years, changing wash-day to a pleasant hour or two.

The seamless, cast-aluminum tub and Gyrafoam action, so fast, careful and thorough; the new-type Roller Water Remover, so safe, handy and efficient; the precision-cut steel gears, so quiet and smooth-running—these and other Maytag qualities give it unmatched value.

You may have your choice of power—electricity or gasoline. Any farm home anywhere can enjoy the Maytag. Every farm home needs this willing washday servant. It saves precious hours that may be turned to profit or pleasure. Get it now and make the holiday joy complete and lasting.

Deferred Payments You'll Never Miss

THE MAYTAG COMPANY, Newton, Iowa

Founded 1893

Eastern Branch, 851 N. Broad St., Philadelphia, Pa.

The Maytag Co., Ltd., Winnipeg, Canada
Hot Point Electric Appliance Co., Ltd., London, England
Maytag Company of Australia—Sydney—Melbourne
John Chambers & Son, Ltd., Wellington—Auckland, N. Z.

Maytag Aluminum Washer

Free for a Week's Trial Washing

Write or phone the nearest Maytag dealer. Without cost or obligation, the nearest Maytag dealer will bring you a washer to your home for a trial washing. There you are to test its ability, weigh its advantages, judge of its merits. If it doesn't sell itself, don't keep it.

Maytag Radio Programs

KDKA, Pittsburgh, Tues., Wed., 10:00 P.M. W.C.O., Minneapolis, Fri., 8:30 P.M. KEX, Portland, Ore., Tues., 8:30 P.M. WBAP, Fort Worth, Mon., 8:30 P.M. WBZA, Boston, Springfield, Fri., 7:30 P.M. C.F.C.A., Toronto, Can., Tues., 7:30 P.M. WHT, Chicago, Tues., Wed., Thurs., Fri., Sat., 9:00 P.M. KNX, Los Angeles, Wed., 7:00 P.M. KFRC, San Francisco, Tues., 7:00 P.M. KMOX, St. Louis, Tues., Thurs., Sat., 10:15 A.M. KSL, Salt Lake City, Mon., 7:30 P.M. KLZ, Denver, Thurs., 9:00 P.M.
Hours designated are Standard Time at the stations named.

PENNSYLVANIA FARMER

Consolidated with

PENNSYLVANIA STOCKMAN and FARMER

December 1, 1928

Established 1877



Pittsburgh

Harrisburg

Philadelphia

Farm Facts and Fancies

By ALVA AGEE

THE man I recently mentioned who had money in his youth and is now a night watchman came up to see me the other day. He now has a savings account and has lived cheaply enough to let him put a considerable sum into it. That sounded good to me, but he said he wanted to be in some sort of business for himself and hoped soon to cut loose and try selling bonds on a commission basis. If he does, he will go hungry again—hundreds of fellows more aggressive than he out here on the Coast are making little



or nothing, in that field. I was inclined to blame him for considering the dropping of a sure thing, and later I began wondering how many farmers, with their reputation for conservatism, would find their work attractive if there were not always the chance and the hope that the year's profit would be unusually good.

The business of farming has an element of uncertainty in it that makes it attractive. There are risks of many sorts—and a willingness to take them rather than to be assured of a small fixed income. The possibility of unusually good yields and prices gives an interest that the man on wages does not have. The chance may be slight, but it is liked, and the certainty of an average income each year would not appeal to many. My watchman friend wants the element of risk to pep up existence for him, and he belongs to a great company in this world.

A Young Man's View

We were dinner guests in the home of four interesting people. Some one mentioned the incident of the poor fellow who told the judge he simply could not begin paying alimony for three months, as he had two more payments yet to make on the engagement ring. Proof that this did not illustrate an universal trend of installment buying was offered by the case of a man who had been in an accident. The doctor set his two broken legs, stitched up a gash in his face and mended his skull. The patient was grateful, but said that he did not know when he could pay him, as he had only a few hundred dollars and was saving that sum for an emergency.

I was interested in the point of view of the son in this family, a bright college boy. "Why deprive one's self to save for grand-children?" He believed there was no true philosophy in that. He thought that installment buying assures worth-while living to those who would miss much by waiting.

A Sense of Security

I feel friendlier to the modern development of the installment idea than I did years ago. It has raised the level of living by creating an enormous demand that keeps everybody busy. It has increased the buying power of the public, and the result is far greater consumption. That in turn makes way for more industrial activity, and workers buy still more and live better.

It sounds a bit too good to be true, and some of us have wondered when it would prove to be a bubble instead of a solid substance. It may be right enough—maybe so. If we choose to grant that it is, there remains the fact that some people are overlooking one means of enjoyment that a modest sum of money can afford. The money's expenditure could bring benefits in many ways, but it can bring more solid satisfaction to thoughtful folk in the sense of security it gives that they need not

feel dependent for necessities when they can no longer earn money. That is worth a lot.

Farm Capital

I know a man—know him better than I would choose—who never could understand why one should not buy what he wanted if he had the cash in hand. He lacked farm training that the most of us have had, and has no comprehension of the fact that a farmer naturally guards his capital because it is necessary in his way of securing a living.

Half-wits jeer at farm economies, and some folks, even wiser critics, because they do not comprehend the difference in situation between one whose living depends on the preservation of capital that he can use and the one who is in a salaried position. It is in this necessity that the farmer has the advantage over others who are not compelled to accumulate and to keep capital. The latter can slide along without it until the rough places come later in life. It is in the nature of farming that capital be guarded in order that business can be carried on, and along with it is the sense of security that is a big annual dividend which does not appear in a farm income statement. I wish young people would think about this.

Dirt Roads

As everybody knows, it is an excess of water that makes dirt roads bad. The water is held in ruts made by wheels following tracks, and it is held at the sides of the road. Of course the road-bed becomes soft and nearly impassable. When a road has been crowned and the water let out of the ditches the big trouble is the ruts. The water is held until it soaks down or is evaporated. D. Ward King, of Missouri, got the common-sense idea that a split-log drag, run at an angle over the road when the surface was wet, would fill the ruts so that there would be less tracking of wheels, and it would puddle the surface so that water from the next rain would run off quickly.

I know by experience that the drag does good work where there is enough clay in the ground to puddle and the dragging is done with some judgment. It needs to be used when the surface has only partially dried after a rain. Ruts are filled and no tracking by those using the road is necessary. It needs to be used by one who believes in it—there is much in that—and by one who is paid to keep the road good. His work will not cost as much as the interest on a paved road, the country road is kept passable the year round, and justice is done everybody.

Where logs have gone out of style, planks set on edge do about as well. Ask the U. S. Department of Agriculture at Washington for plan for making the drag, and ask the state and county for a square deal in respect to country roads. We all are one people with common interests.

CANNA BULBS

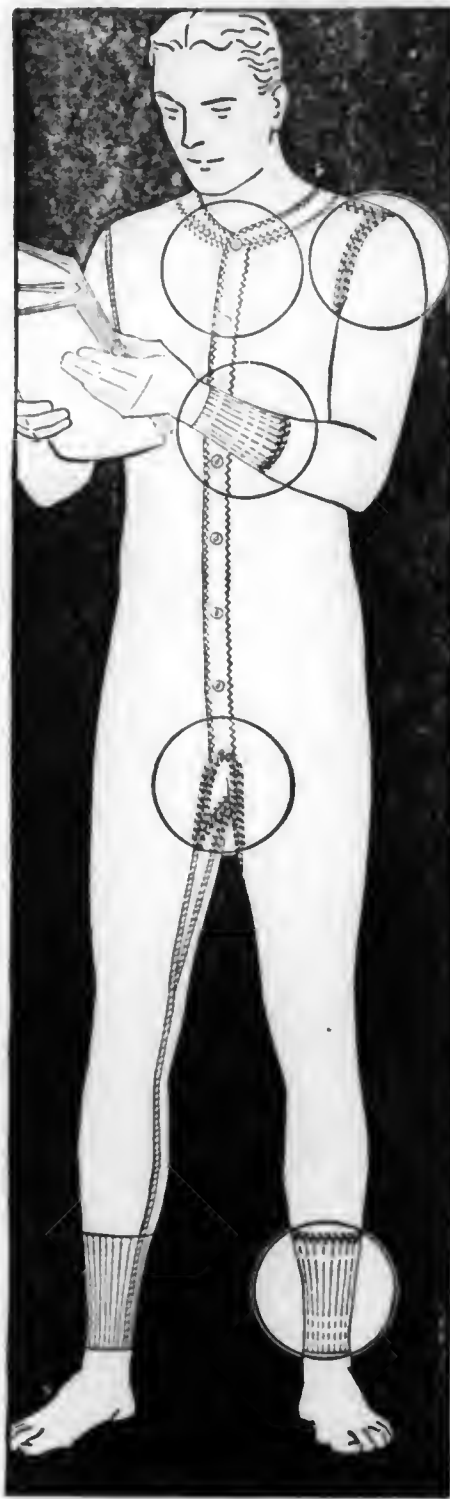
Please tell me through the Pennsylvania Farmer how and where to get canna bulbs. Those are the dwarf kind and always hard for me to buy. Shall I bury them in sawdust?

E. T. B.

CANNA stools are usually dug up in the fall and stored in piles in a frost-proof shed or cellar where the temperature can be held at about 38 to 42 degrees. The stools are dried immediately upon digging with great lowering them to dry out as is the case with dahlia clumps. The room in which they are stored should be humid, for a dry room will cause the rhizomes to dry out and a dry rot to develop. Humidity and temperature are the two most important factors in the storage of canna bulbs.

E. I. Wilde.

HANES
winter
underwear
will fit you
like your
reflection
in the mirror



1 HANES Collarettes are cut to size. A 40 suit has a 40 collarette. Won't roll or gap open.

2 HANES Cuffs won't pull off. They snug the wrist. Reinforced on the end to prevent raveling.

3 HANES Elastic Shoulders give with every movement, because they're made with a service-doubling lap seam. Comfortable. Strong.

4 HANES Closed Crotch really stays closed. Crotch can't bind, for HANES is fitted by trunk measurement as well as chest.

5 HANES Elastic Ankles never bunch over the shoe-tops. No ugly pucker showing under socks.

DON'T cramp your style with ordinary underwear. Look at the HANES 5 points. Notice the cut and finish. Know that here is the rare snug fit and the all-the-time comfort which active man and easy-goer both crave in winter underwear.

Startlingly low price for so much warmth, wear and satisfaction: \$1 to \$1.75 according to weight you prefer to wear. 75c to \$1 for shirts and drawers. All guaranteed—every thread, stitch and button. Seams flat-locked—doubly strong, but smooth as lather. From extra-heavy to light-weight in all sizes.

HANES Underwear for boys is as carefully made as the men's garments. As snug, soft and comfortable. It's built for strenuous play, long wear and continual washing. Has its own special points of superiority. Carries full-sized guarantee. Remarkably low priced—only \$1 for boys', age 2 to 16, and Merrichild Waist Suits, age 2 to 12. Short sleeve, knee length garments in both. HANES is the underwear for every male member of the family.

If your store hasn't HANES, write to P. H. HANES KNITTING COMPANY, Winston-Salem, N. C.



A single step of this Goodrich Giant measures months of rugged wear

Pound . . . scrape . . . stretch . . . bend! In a few minutes, a battery of machines at our factory tests the wearing power of the rubber that goes into our boots and overshoes more than you could in many months.

A BIT of the rubber that goes into the sole and heel is slipped into one of these machines. At high speed, it's rubbed more in a couple of hours than you would rub it in a year of use.

A piece of rubber such as goes into the uppers is tested in another machine to make sure it's both elastic and strong. In a few seconds, it's given harder pulling than you would give it in months of wear.

Twist—bend—twist, again and again! A section of the rubber that's used over the instep and at the toe is put in a third machine. The machine strains it far more in an hour than you would in a year.

These tests are truly astonishing. It's as if a "giant farmer"

put on a pair of Goodrich boots and—like the giant who walked seven leagues at a step—strode through a whole year's wear in a single afternoon.

These tests assure you of good value when you buy Goodrich footwear. Look for the name Goodrich. It is plainly stamped on all our boots, overshoes and rubbers—the honor mark of a great company.

From sturdy boots, overshoes and work-rubbers for men and boys to dainty stylish Zippers and rubbers for women and girls, the Goodrich line of tested rubber footwear meets the needs of every member of your family. The B. F. Goodrich Rubber Company, Akron, Ohio



A favorite with farmers—this brown Goodrich boot with white sole. Sizes, boys' to men's. All lengths, knee to hip.

This sturdy Norka comes in black with white or brown sole. Unexcelled for heavy wear.

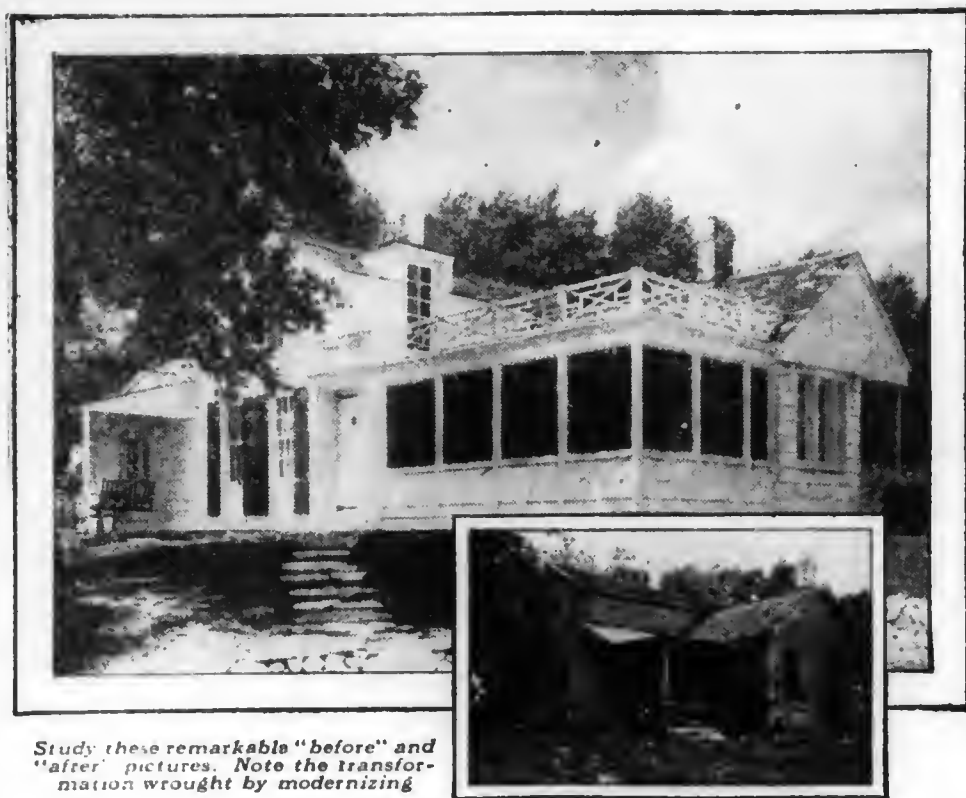


These strong, comfortable all-rubber overshoes come in all sizes with 1, 2 or 3 buckles.



Goodrich

RUBBER FOOTWEAR FOR EVERY MEMBER OF THE FAMILY



Study these remarkable "before" and "after" pictures. Note the transformation wrought by modernizing.

Yes . . . you're eligible in IDEAL FARM HOME PRIZE CONTEST

It's open to farmers and their families.
102 prizes offered for the best ideas on
the Ideal Farm Home.

HERE is an interesting contest open to farm men and women all over America.

All you do is submit a letter describing the "Ideal Farm Home"—picture in words the dream house you've always wanted to have—and attach a rough sketch of the floor plans.

No expert drawing ability is needed. Just submit your own idea of what you think an "Ideal Farm Home" should be.

And don't limit your entries. Send along as many as you like—and thus have more than one chance of winning a share of the \$2,500 in prizes. In case of a tie, the full amount of the prize will be awarded each winner.

Get inspiration from the beautiful moving picture—"The Transformation"—which tells the story of the romantic modernization of a farm home. Write to the American Farm Bureau, 58 E. Washington St., Chicago, Ill., to secure free showing of this picture in your neighborhood.

One hundred and two prizes having a total value of \$2,500 are offered. The awards will represent orders for lumber or lumber products on a

lumber dealer in the vicinity in which the winners reside. The first prize will have a value of \$300, the second \$200, and there will be 100 prizes valued at \$20 each.

The contest is open only to farm men and women and closes midnight, February 15, 1929. The judges will be selected by the American Farm Bureau Federation and their decisions will be final.

Booklet to Help Contestants

The booklet—"The Use of Lumber on the Farm"—will help you in this contest and all your building problems. Send for a copy of it. This book shows simple, practical plans for farm improvements, how to cut lumber costs, how to choose different grades for various jobs, how to get good lumber, how to preserve your lumber so it will last indefinitely, and much other information that every farmer wants and needs. The book is free. Clip coupon for it now.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION

Washington, D. C.
Offices in New York, Atlanta, Pittsburgh, Boston,
Chicago, Indianapolis, Kansas City, Memphis, Dal-
las, Minneapolis, San Francisco, Portland, Ore.

"American Standard Lumber from America's Best Mills"

Mail Coupon Today for Interesting Booklet

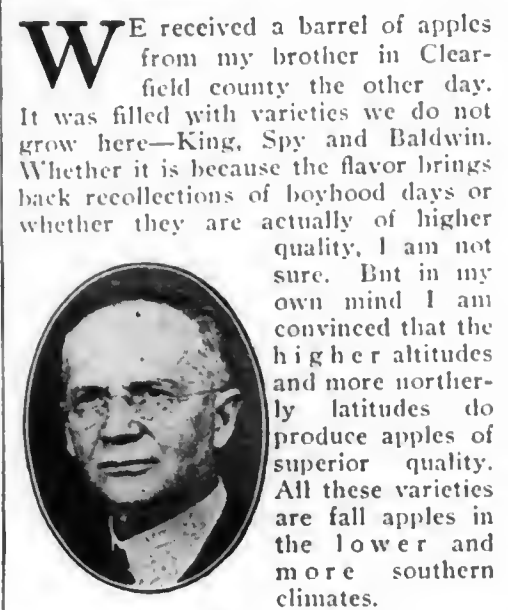
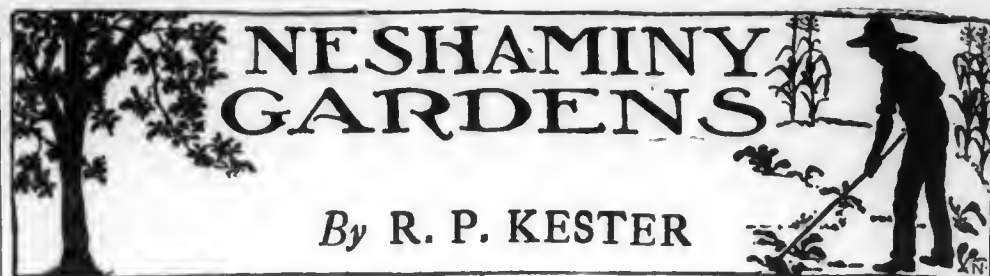
National Lumber Manufacturers Association
Dept. 1401, Transportation Bldg., Washington, D. C.
Gentlemen: Please send me my copy of the practical handbook—"The Use of Lumber on the Farm." Also send me details about prize contest.

Name _____

Town _____ R. F. D. _____ State _____

I intend to build a _____

THE ADVERTISEMENTS in Pennsylvania Farmer contain information that is valuable and important. Read them and when answering them mention Pennsylvania Farmer. It will help us and help you.



A great many of the old time apples of local fame seem to have been dropped from the lists of nurserymen. Apple production in recent years has been developed along lines laid down by commercial orchardists who have the sole purpose of getting bushels and dollars, and the growing of many varieties noted for distinctive and high quality has gone by the board. I remember that my friend Sheldon Funk threw a brick at me for writing similar sentiments some years ago. However, I am still of the opinion that apple consumption could be increased by putting on the market apples having a better flavor than many of the most widely-grown sorts now possess.

I was looking over the place the other day with a critical eye and could not help but feel downcast at the abundance of weeds to be found at this, the season's end. The frequent rains during the summer made it a fight for life, at least for the life of the cultivated plants, and in spite of doing two or three times as much work as is usually needed, weeds were there to come on and mature late in the fall. The value of the weeds as mulch and humus-making material is off-set by the fact that the ground will be polluted with seed for next season. Nature played a smart trick on man when she provided that weed seed should not all germinate at one time, nor in one year, else we could more easily get rid of them.

It seems to me that the next and most important problem for the agricultural wisecracker to tackle is that of ridding farm lands of weeds. Hoeing and cultivating to keep down weeds is the most expensive part of farming. The prevalence and abundance of weeds is the biggest economic problem in agriculture today. Extensive and expensive campaigns are put on to check the spread of new insect pests, but weeds go on forever. Experiments have proved that cultivation has little value except as it prevents the growth of weeds. The business of farming would be more pleasant, and profits almost assured, if there were no weeds. Here is a place for real farm relief work. Is the task impossible?

President-elect Hoover's pronouncement that farming should remain as it is, in the hands of home-owning, home-loving farmers, will be approved by those who see in farming a calling which is infinitely more than merely digging so many dollars per acre out of the land. He sees in the business of directing the operation of a few acres by the owner the ideal condition for the making of strong individuals and the building of permanent homes and

ness these days is to become still bigger by amalgamation, centralization and the making of super trusts, and some short-sighted materialists have said that the only way to bring "relief" out on the farm is to throw a hundred or more farms together under centralized management, and hire the present farmers as laborers!

It is not at all likely that the present generation would voluntarily adopt such a scheme. But what will the future generation do about it? Unless the educational systems change their curriculum and spirit so that their product will not view a white collar job as the acme of their ambition it may turn out that farming will be considered only in the sordid light of food production, and that the only way land can be filled will be by laborers under the direction of superintendents and overseers.

"Ill fares the land, to hastening ills a prey,—etc."

Little "Buddy", the younger of the pair of boys at Neshaminy Gardens, had a birthday recently. There were three candles on his cake and he enjoyed the novelty of having a whole cake set directly in front of him. His mother had promised him a piece of the "surprise" and some extra candy and peanuts if he would eat his spinach. He is a brave little fellow and self-sacrificingly ate two bites of spinach. But the request that he eat some carrots also was too much. "Buddy" does not join the grown-up public in praising the high quality of Neshaminy Garden vegetables by eating them voluntarily.

Being three years old should be an interesting experience, but I doubt if many of us remember anything about it. Grown people refer to childhood as the "care-free" age. That proves they do not remember their own childhood. I notice that they have their cares, sorrows and disappointments, none the less poignant because they are brief. I also notice that the greatest ambition of little boys is to "be big". Lewis, the five-year-old, has reached the age where he will swallow his aversion and eat spinach and carrots in order to "grow big".

But life is like that all the way through. We do things today for the sake of the future. We believe things will be better when we pass the next turn. The rainbow leads us on, and because of the desire and the hope for better things Man progresses. In the meantime, let us find what joy we may in today.

Tested Cattle

CATTLE sales for the season were well attended and fair prices were realized. Most of the stock was tuberculin tested. The tuberculin test is getting popular. Most of the farmers have signed up. One objection they seem to voice is that they do not get enough for their cows. When they go into the market for tuberculin tested stock they claim the price for stock is not within reach of the farmer.

Bucks county, Pa. W. N. M.

Sweets Taught

IN the high and grade schools the teachers are giving special instruction to the pupils in the worth-while things of life. They exhibit slides on the planting, raising, manufacturing and marketing of beet and cane sugars, and the manufacturing and marketing of

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Pittsburgh, Pa., December 1, 1928

No. 11

My Friend, The Tax Man

By HOWARD MITMAN

THE tax man is my friend; I have it on the best authority, for he says so himself in letters he sometimes writes me. At any rate, he is constant, persistent, and unforgetting—all admirable qualities in a friend.

There are times, however, when I am inclined to question his friendliness; when I feel he is taking advantage of me as no real friend will. When I feelly voice a protest he says, in effect, "Well, what are you going to do about it?" And that is true—what am I, what are we, going to do about it?

Some time ago the editor of the Pennsylvania Farmer wrote of a tax meeting he attended and told us nothing was done. That is too often the outcome of farmers' meetings. They evaluate in nothing. The old Romans had a motto—"Ex nihilo nihil fit"—out of nothing nothing comes. The ancient Romans were very modern in many respects and they foresaw many of the things of today, particularly as applied to meetings.

We hear a great deal these days about economies at Washington which will permit reductions of some hundreds of millions of Federal taxes. I suppose I ought to rejoice with the rest at this concrete evidence that "taxes are coming down," but somehow I am not very enthusiastic. Seems odd, somehow, that "taxes are coming down," while we are trying so hard to raise them, or raise the money for them.

When I am paying an account of any kind I am prone to say or think "For value received," thereby satisfying my bookkeeping instinct which insists there are two sides to every monetary, business transaction, that balance one another. I like to feel that I have obtained, as nearly as my business aptitude will allow, a dollar's worth in goods or services for every dollar my payment represents. When I am not able to do this it becomes apparent to me that I was not as careful or as wide awake as I should have been. In spite of many improvements in business dealings the old maxim holds—"Caveat Emptor," let the buyer beware. Poor Richard phrases it very tersely in his famous story of The Whistle.

Value Received

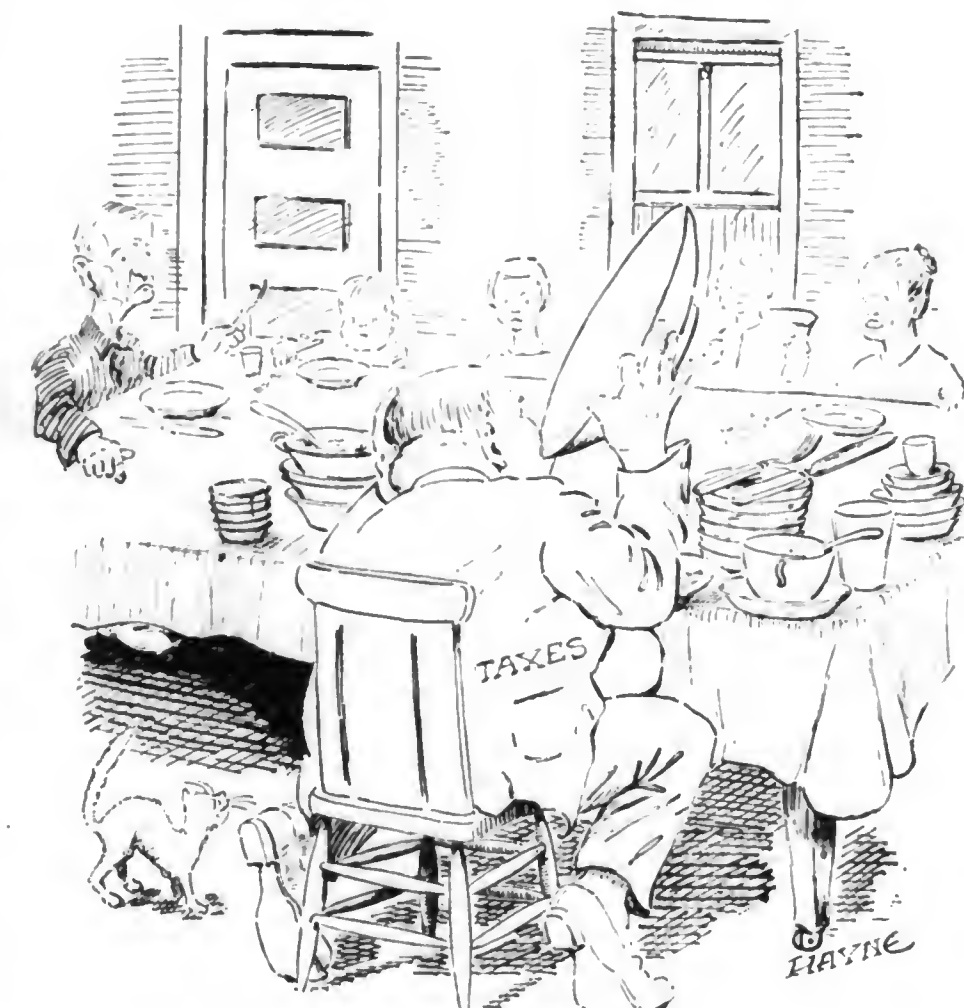
As a plain citizen I am becoming increasingly disturbed at the unsatisfactory returns in good schools, good roads, good government, my tax money buys for me. Those whistles certainly cost too much. Neither quality nor quantity is there.

This is the day of universal tinkering. Self-appointed censors find much that is amiss with our schools and our roads. They raise a mighty protest against present conditions and work ceaselessly for changes which they claim to be improvements. They ignore the self-evident truth that all such changes in direction or condition imply the expenditure of money, and the money must be supplied by the tax payer. Usually the tax payer has little or nothing to say about such expenditures. He sees the waste, the doddering inefficiency, but is helpless either to prevent or to correct the evils. This is true in practice despite the fact that the remedy is, theoretically, in his own hands if he chooses to vote more capable men into office. The leaks that sink great ships or impair their buoyancy need not be very large, provided they keep everlastingly at it; neither need there be great deliberations or actual thievery to bankrupt a township or a county.

The point of view of some township officials is extremely curious and very significant. A few years ago a board of supervisors neared the end of the fiscal year with upwards of \$15,000 of the current funds unexpended. The discovery caused a hubbub in the meeting. "Boys," said one, "we must not

It will require a lot of explaining." All agreed that it looked bad; so they, at the eleventh hour, undertook work that could well have been postponed until a more favorable season; work that was not finished before winter called a halt and that had largely to be re-made the following season. But the supervisors triumphantly reached the auditing room in early December with barely one thousand dollars in hand.

Much of the wastefulness apparent in the handling of tax money is due to the haphazard fashion in which things are done. A certain school board was solicited by an unscrupulous agent to change readers. The books in use had been introduced by the same agent less than three years previous, but he urged that they be discarded in favor of his newer product. About the only difference discoverable by teachers and the principal was in the color of the cover; the books knocking for admission were of a different shade of green. The net cost to the township was in excess of \$300, the old books being



He Eats Enough; We Must Make Him Pay for It

taken in exchange. The deal was put through when the agent played his last card—he granted credit for three years. In effect, the directors believed a new board would be in office before the debt need be paid!

For these and similar idiosyncrasies, let us say, a remedy should be found, based on the enforced making of a budget. The amount of money available for the year's work, whether for school or for roads, is known. Any man in his own business with such conditions would apportion carefully the sums he could wisely devote to any of his projects. With even average understanding he would not undertake more than the funds in sight would pay for, and above all he would do the most necessary things first. He would cut his coat according to his cloth.

But this good old rule seems to have fallen into abeyance, nay even into innocuous desuetude, so far as public work with public money, tax money, is concerned. It is a curious commentary on human

conduct that officials will often champion undertakings and consent to expenditures they would not for a moment countenance as private individuals.

I believe there should be a township fiscal officer, a sort of treasurer, controller and bookkeeper rolled into one, who would never sleep when public money, your tax money and mine, was to be expended. The time to stop wastefulness is before it happens; before the expenditures have been made, not after the bills have been paid. Whatever other powers may reside in township auditors, their main functions today consist in counting the cash on hand, the cash received and the cash paid out, and make sure the balance reported is correct.

Where auditors have tried to do more, perhaps surcharging officials with moneys paid out for purposes the auditors could not approve of, the outcome too often has been mere wrangling, sometimes leading to court proceedings and additional expense.

One thing is certain. Roads and schools are the business of the people and the people themselves must look after their own business if they wish it to prosper. Choosing, at recurring elections, men to whom the work and management are entrusted, is good but it is not enough. Men elected to supervise the roads and the schools must themselves be supervised by an alert citizenship, not in a merely spying, trouble-making way, but in a spirit of helpfulness and cooperation.

Nothing, however, could be less helpful than to have an unorganized mob pester the supervisors or the directors with ill-considered advice or officious meddling. That would simply make "confusion worse confounded." But I believe there is a way at once sane and desirable.

The Demands We Make

In every township there should be an organization—call it a Taxpayers' League if you will—whose purpose would be to study the problems confronting those responsible for the roads and the schools, and consider the means available for solving them.

I believe we often blame our officials for decisions they could not avoid because of conditions thrust upon them; I believe we often ask them for results not possible with the means at their disposal or the plans of those in higher executive positions who look at matters from a county or a state point of view. But it is also true that things are often done and decisions made through lack of knowledge which would not have been undertaken under better understanding. In a multitude of councils there is safety.

N. J. Truck Shipments

A STATE survey just completed shows that the motor truck receipts of fresh fruits and vegetables from New Jersey during July, August and September exceeded railroad receipts in the New York market by the equivalent of over 1,000 cars. It furthermore shows that of the 6,000 car equivalent of produce received by motor truck at New York from all sections New Jersey supplied approximately 65 per cent of the receipts. It is interesting to note that during this same period New Jersey fruits and vegetables comprised 13 per cent of the total amount of fresh produce received in New York City from all sections of the country. Markets such as Newark received about 75 per cent of their fruits and vegetables by motor truck, as opposed to 25 per cent by rail. In Philadelphia and Atlantic City the percentage of New Jersey perishable products received by truck totals an even larger proportion of the total New Jersey receipts. These figures show the increasing importance of the motor truck as a marketing economy to growers.

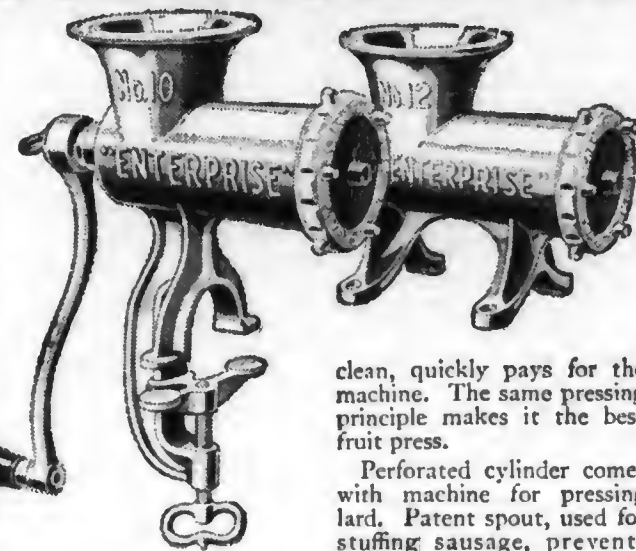
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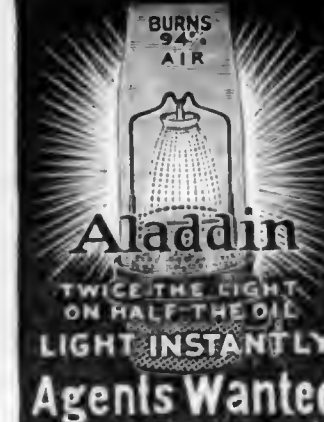
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em in is t' tie a knot
in their tails. Dave's
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A Hot-Air Furnace

I have a hot-air furnace—21-inch fire-pot—that does not heat my seven rooms and bath since we took out the partition making the living room 16x32 ft. If I were to make this into a pipeless furnace, do you think it would be more satisfactory. I now take the cold air from the cellar. C. R. HALLER.

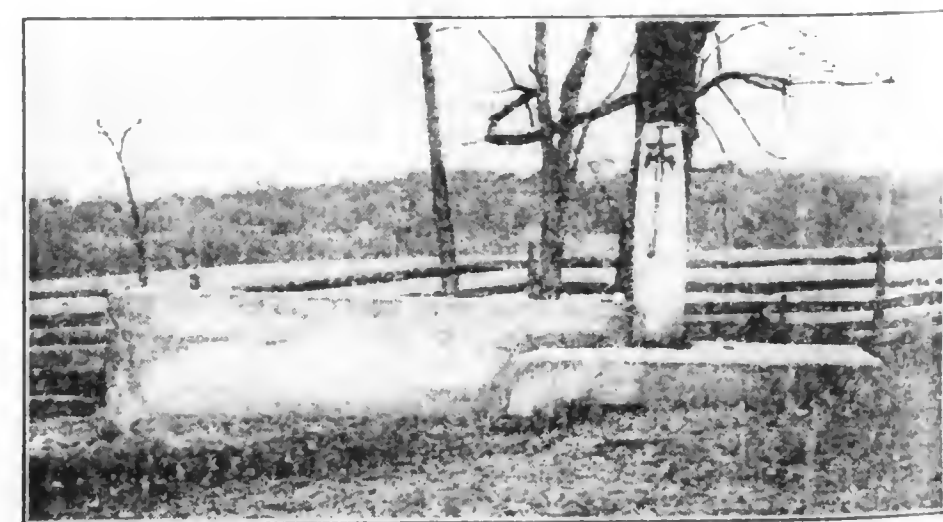
I HAVE noticed in many cases that the pipes leading to the various rooms from hot-air furnaces are covered or wrapped with insulating material, such as asbestos. This prevents in some degree the hot air becoming cold before it reaches the room which it is supposed to heat. When air cools it becomes more dense and has a tendency to drop rather than to rise. You might try covering one of these pipes with some non-inflammable material and observe the results. Sometimes you can buy scrap asbestos and mix it with water to the consistency where it can be applied, and in this manner you can put on whatever thickness you desire. I do not believe that your furnace can be readily converted into a pipeless furnace owing to the fact that furnaces are hardly ever designed so that they can be converted successfully, so I am told by authorities on this subject.

It may be that there are sufficient leaks in the pipes to prevent the heat reaching its destination. Sometimes cellars are rather open and cold and have a tendency to cool the pipes off to the point where they will not function properly. R. U. Blasingame.

Electric Motor Saves Time

DURING the fall of 1924 I placed a meter on the one-half horsepower electric motor driving a potato grader owned by Mr. Levi H. Brubaker, Lancaster county, Pa. Mr. Brubaker graded 700 bushels of potatoes in September, using only one kwh. of electric current. In October he graded 1,300 bushels of potatoes, consuming 2 kwh. This is very cheap power. Mr. Brubaker said that formerly he had employed a man to turn the machine by hand.

The little motor saved a man's time



Concrete has many uses on the farm, but is seldom found serving in the capacity illustrated above. This Somerset county, Pa., farmer not only

and the energy cost was almost nothing. It is remarkable what can be done with electric power. It is convenient, safe, clean and efficient when properly installed. R. U. B.

To Clean Spark Plugs

ONE large manufacturer of spark plugs recommends that to clean spark plugs simply fill the lower part of the plug with alcohol, or any liquid metal polish, and allow to stand for a few seconds; take a piece of wire covered with one thickness of cloth and rub the carbon from the insulator then wipe clean and dry thoroughly before replacing in the engine. Cleaning a plug in this way is far better than taking it apart to clean. When a plug is once taken apart there is great danger that it will not be put together securely again, which would cause leakage due to it being gas tight. This in turn causes loss of power.

In cleaning the sparking points use emery cloth or a knife.

In cases where the electrode is badly worn away and when the insulator is coated heavily cleaning is of no avail. It is then better to install new plugs.

Disinfectant Whitewash

I WOULD like to make a good disinfectant whitewash that stays on in all weather that doesn't stick to clothes. ECTO GLEN FARMIS.

THE Lighthouse Board of the U. S. Treasury Department uses the following mixture: One-half bushel lime slaked in boiling water. Keep covered while slaking. Strain and add one peck of salt dissolved in warm water, three pounds of ground rice boiled to a thin paste, one-half pound powdered Spanish whiting and a pound of clear glue dissolved in warm water. Mix well, allow to stand for several days, and apply as hot as possible. A whitewash which serves very well for inside work is made of one part (by volume) of unshaken lime to three parts water, stirred while boiling. It is improved by substituting for half of the water skim-milk or buttermilk. To be applied cold.

Preparedness

By W. D. ZINN

I DO not have reference to military preparedness. The nations of the world ought to be so far advanced in intelligence and religion that it would not be necessary to prepare for war any longer. I refer to agricultural preparedness. If all the farmers would see to it that their lands are fully prepared for the crops they wish to grow on them it would give the farmers greater relief than any relief that Congress could give them.



What would we think of a railroad company that would make a road bed through the country and start to run

locomotives over the road before any cross-ties or rails were laid down? The farmers who are farming wet or sour land are acting just as foolishly. It would be hard to estimate the loss sustained by farmers in the United States on account of their farming wet land. In many cases one-third of the farm, if well drained, would produce more than the entire farm is now producing. It is true that tiling land is now very expensive, but not to tile it means a loss every year that no farmer can afford. Tiling is not the only thing that is high. Labor is high and so are taxes and to pay out money for labor and taxes and get no reward ought to discourage any farmer.

Even if our land is tiled much of it is so sour that it will not produce profitable crops. Lime is needed on such land and the farmer cannot afford to farm it without applying the lime. After one has gone to all the expense to tile his land it seems almost a waste of money to farm it without making it ready to produce maximum crops by applying lime.

If both of these things are done some soils refuse to respond until they have had an application of phosphorus. Crop yields are often reduced because the land is short on this element of plant food.

Low-Grade Fertilizer

A PENNSYLVANIA reader asks me what I think of a 1-8-1 fertilizer for corn and he says: "Now, do not recommend me to use superphosphate, for I have used the last of that fertilizer I will apply to my land." There is little use to advise a farmer who has made up his mind that he intends to do a certain thing and does not intend to do something else.

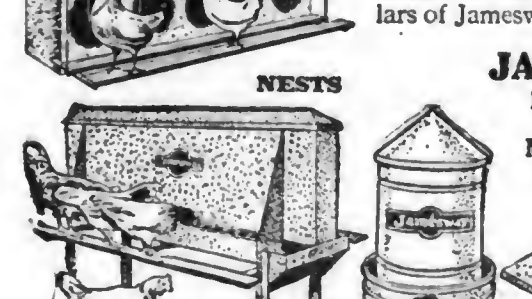
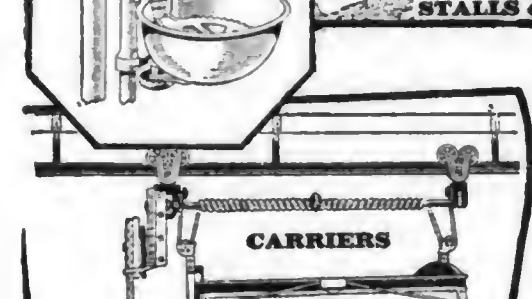
Since this farmer lives in Pennsylvania, he can continue, I think, to apply a 1-8-1 goods to his land, for there is no law to prevent the sale of such low-grade goods, but if he lived in West Virginia he could not get it, for the Farm Bureau Federation several years ago got a bill through the legislature making it unlawful for anyone to offer such low-grade goods. By this act the farmers have been saved thousands of dollars. Even the manufacturers of fertilizers themselves argue against the use of such goods.

In a 1-8-1 goods the farmer gets 20 pounds nitrogen, 140 pounds phosphoric acid and 20 pounds potash, and it sometimes sells for \$27, while a 2-16-2 goods can be bought for \$34. The latter contains 40 pounds nitrogen, 320 pounds phosphoric acid and 40 pounds potash, or it contains twice as much plant food and costs only \$7 more per ton.

I would like for our correspondent to know that when he buys a 1-8-1 goods he is most likely to get 1,000 pounds of superphosphate, the very thing he has said he will not use on his farm. Then I want him to remember that he never bought a low-grade fertilizer that he did not pay more per pound for the plant food than he would have had to pay had he purchased a high-



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In Enemy Country

By
James Willard Schultz

Chapter I.—The Red Gown

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MY winters were not many when I realized that my father, Many Swans, had very peculiar ways. He was not a sociable man; he rarely visited in other lodges of our great camp, and seldom invited men, not even those of our own clan, to feast and smoke with him. He was a medicine man, owner of the sacred buffalo medicine, the symbol of which was painted, life-size, upon our lodge; on the right side, a buffalo bull; upon the left, a buffalo cow; both of them in black, with a red life-line running from mouth to red heart. My father often went to war against the Crees, Assinibolnes, Crows and Sioux, always alone, and never failed to return with scalps and horses and weapons that he took from the enemy. He was so successful in this that other warriors often asked to be allowed to follow him upon his raids; and always he replied that his sacred medicine forbade his granting their requests. By his raids and by natural increase, our horse herd would have numbered several hundred head had he been less generous; as it was, he gave away to his own and to my mother's relatives the greater number of enemy horses that he captured, reserving for us only the fastest and most powerful, well-trained buffalo runners.

My mother, Lone Woman, was very beautiful of face and of slender and active body. Her hair, done into two heavy braids, hung almost to the ground. Although she was, of course, a medicine woman, helper of my father in his buffalo medicine ceremonies, and always one of the sacred women who built, every summer, the great lodge for Sun, she was at the same time of very happy disposition. She loved company, song, jokes and laughter, and often reproached my father for his aloofness from it all. Always he would reply: "I am as I am. When I am away, fill our lodge with your friends; feast and chatter with them. While I am here with you, help me to live in the quietness that enables me to think about the gods and understand their ways."

Always, when my father went upon his lone war trail, my grandmother came to live with my mother and me; she was my mother's mother. My other grandmother was dead. It is one of Sun's laws, that he gave us in the long-ago, that forbids men meeting their mothers-in-law or even seeing them. So it was that, upon returning from war, my father would always stop at the outer edge of camp and get some one to come to us and announce his arrival; my grandmother would then kneel before her face, hurry belongings and, with wrap concealing her face, hurry across the circle to her own lodge. Then, when my father came in, he would always ask about her health and name certain horses that he had taken for my mother to give to her. And he would add: "Tell her, too, that I have great respect for her; for her kindness of heart; for her upright life. Ask her to pray for me."

"SHE does pray for you; constantly prays for long life and happiness for us all. She is very proud that she is your mother-in-law," my mother would reply.

When I was six, maybe seven, winters old, I began helping my father take care of his fine band of horses, and when he was away, I helped the man whom he left in charge of them. Always, when night was near, we brought the band into camp, and, roping the most valuable of the animals, tethered them close around our lodge, where they would be fairly safe from enemy war parties. Then, in the morning, we would turn them loose to go out and graze with the others of our band; a little later, after our morning meal, we would round them all up and drive them to water, and out where the grazing was good, then leave them to wander about as they would during the day. Horses are clanish; the members of one band do not mix with those of other bands; therefore it is no great task for a person to take care of his band; he recognizes it from far by the color of the animals and their number. In my father's band were many pinto horses—black-and-white-spotted, brown-and-white-spotted, yellow-and-white-spotted; very beautiful animals they were.

During my twelfth winter our tribe camped and hunted on Bow River, close up to the great mountains, and then, in the New Grass moon of spring, we moved out east and south to the Divided Hills*, where not only buffalo, but all other kinds of food animals—elk, moose, deer and antelope—were plentiful. One morning, soon after we arrived there, my father awoke me, told me to dress and go with him to round up our horses.

Day had not yet come. I was still sleepy: "Why go so early?" I asked.

"Because I am uneasy about our animals. I feel drawn to them," he replied.

We went down the valley, and, as we neared the edge of the plain, day came. From the top of a little ridge we saw our band; many of them lying down, the others, heads low, asleep upon their feet. They were distant from us about the length of two

long bow-shots, and for half of that distance the ridge slope was well timbered, with a scattering undergrowth of willows. As we stood looking at the animals, we saw one and another of them raise their heads and stare intently at a point at the edge of the timber ahead of us and well to our right. Several of them stamped the ground with their forefeet, and snorted, and at that the others that were lying down sprang up and also stared at the place.

MY father drew his bow from its case, strung it, drew out three or four arrows, and whispered to me that something was wrong out there. I closely followed him as he noiselessly, cautiously went on. And then, when we were almost to the edge of the timber, we saw two men, straight in front of us, leave it and slowly walk toward the band, each with a coiled and noosed rope in his hands; each wore a single eagle tail-feather stuck up at the back of his head. My father quickly made the three or four steps out to the edge of the timber and let fly an arrow at one of them; it struck him fairly between his shoulders, and with a loud cry he flung up his hands, staggered, and fell.

The other man looked back and saw us, dropped his rope, and ran swiftly to regain the shelter of the timber off to our right. My father fired an arrow at him and it struck into his right shoulder; he yelled with the pain of it, but kept on running. My father fitted another arrow to his bow, and, as he was about to let it fly, lo! the bowstring broke.

So was it that the man got safely into the timber and we were powerless to pursue him. Anyhow, as my father said, it would be death to us to undertake pursuit in there, for he would conceal himself and shoot us as we approached him.

So we ran out to the other man, who was quite dead, and my father took his weapons and shield and tapped the body with his own bow, thereby counting another coup. And then, rounding up our horses, we each caught and mounted one of them and quickly herded the band in to camp. There my father called out for help in hunting down the man who had escaped him. Several hundred joined him in the search, while others hurried to round up their bands of horses. All day long the search for the wounded enemy was kept up, but no trace of him was ever found. Some declared that he must have crept into a patch of very thick brush and there died, but my father maintained that the man had somehow cunningly escaped their search; he was merely wounded in the fleshy part of his shoulder.

There was some talk about the identity of the two men; by the eagle tail-feathers that they wore at the back of their heads, they were either Crows or Sioux. None could be sure to which one of the tribes they belonged. For a long time after that morning, my father scolded himself for not carrying always an extra bowstring. "And through my own carelessness in not throwing away that string, when I knew that it was badly frayed, I failed to count coup upon that fleeing enemy. I shall never again see him," he often remarked.

Sun priest that he was, favored by the gods with visions of what the future held for us, it is very strange that my father got no hint that we were to see that enemy again.

Passed my sixteenth winter, and, in the first

moon of summer, we all moved to the trading post on Bow River, to exchange our winter take of furs for the white men's goods. In our lodge were one hundred skins of beavers that my father and I had trapped, that my mother had carefully fished off all grease, and perfectly dried in willow frames. We were rich in furs, and my mother urged my father to exchange forty of the hides for a gun, and powder and ball and flints. He refused to do it. "My vision is against it. I was warned, as you know, to use only bow and arrows for my weapons," he replied. "Myself, I want of the traders' goods only sufficient tobacco to last until summer comes again. So, my woman, buy that for me, and then, for yourself and our son and your good mother, buy what you will."

At that, my mother took his hand and stroked it softly, and said to him: "Generous man! Too good, too generous to us! And always so silent, so sad. Oh, why can't you be like other men, happy of heart, generous to yourself? With these many hides of beaver, buy things for yourself; pretty, useless things that the white men sell. I should love to see you wearing blankets, every day of different color. I should like you to use white men's paints; a far-seeing instrument; and, regardless of that long-ago vision of yours, a gun."

So was it that my mother and I loaded the trading skins upon three horses, and led them to the trader's post, my grandmother accompanying us. Arriving there, we carried the packs of skins into the trade room, seated ourselves upon them, and, looking at the various articles displayed upon the shelves behind the long, high counter, considered which ones of them we would own.

Said my mother: "First of all, we buy tobacco to the amount of ten skins."

"No. Twenty skins for tobacco; you must be sure to get enough of it to last your man's use until next trading time," my grandmother said.

"Yes," my mother agreed.

They then whispered to one another. I heard them mention a gun. Were they going to buy one for my father, against his certain word that he would not have it?

We heard a commotion outside; men shouting, horses neighing, dogs barking. My mother was afraid that our horses had got into some kind of trouble; she told me to go out and remain with them. I did not want to go. I wanted to see her trade in our skins. But my grandmother said to me: "You heard your mother. Do not hesitate. Go!" Then I went out. Our horses were as we had left them. Two, near them, had become tangled in their ropes and were plunging about and kicking one another. I helped their owners free and quiet them.

After a time my mother came to the gate of the trading post and called to me. I followed her into the trade room and she pointed to a little heap of things upon the floor: blankets, tobacco, red cloth and blue cloth, and, on top, a gun, can of powder, and sack of balls. "It is yours, the gun; yours, the food for it. Take them," she told me.

I WAS so surprised that I could not speak. I trembled. My grandmother looked at me and laughed. The trader white men, behind their high counter, also looked at me and smiled. I took up the weapon and its belongings, the women took to the other purchases, and we went out and mounted our horses and rode home, my grandmother to her lodge, my mother and I to our lodge. We entered it, and my mother placed before my father the things that she had bought for him: the plentiful supply of tobacco, three blankets, a large knife.

He saw the gun in my hands, and said to her frowning: "I told you that I would not have a gun!" "Nor shall you have one; that is your son's gun," she replied.

He smiled. "Good! I am glad that you bought it for him. But what did you buy for yourself and what for your mother?"

"For her, two blankets, red cloth and blue cloth for two gowns, and a package of red paint."

"But for yourself?"

"Nothing."

"Never, never was there a woman so good, so generous as you are!" he exclaimed. And, gathering up the blankets, he placed them at her end of their couch, and added: "They are yours, all yours. I refuse to wear even one of them." And at that my mother cried a little, but happily.

Then, when I had saddled two good horses, my father and I rode north out upon the plain, and he taught me to load and aim and shoot my gun.

* Ahlakinikwi (Divided Hills): the Cypress Hills, east and south of Lethbridge, Alberta. This was a particularly favorite hunting-ground of the Blackfoot tribes, and the Gros Ventres, for there they not only obtained buffalo meat, the staff of life, but also the skins of deer kind for buckskin clothing.

gave me much praise when I sneaked up to a band of antelope and killed one of them. And more than once, as we went homeward with the meat and hide, he said that I must never forget my mother's goodness in giving me the gun; that I must always do all that I could to make her happy.

It was on the following evening, as I remember it, that he said to my mother: "Your mother, I suppose, has made herself gowns with the red cloth and blue cloth that you bought for her?"

"She has made one, of the red cloth, and is now ornamenting it with rows of elk teeth," she answered. "Ah! It will be a beautiful gown. How I should like to see her wearing it!"

"WHY, you shameless man! Wanting to see your mother-in-law!"

"Of course I didn't mean that. I only meant that a red cloth gown with rows of elk teeth must be very beautiful," he quickly replied.

However, he seemed to have the gown upon his mind, for during the next few days he often spoke of it, asking how many rows of elk teeth were to be strung upon it, and if there were to be rows upon the sleeves.

"Why, you funny, funny man! Why are you so interested in the making of a woman's gown?" my mother would exclaim. "Well, if you must know, each sleeve has four rows of teeth."

At last, one evening, she said that the gown was completely made and that my grandmother was wearing it.

"Ah! my father exclaimed; he stared long at our little lodge fire, and then, wrapping himself in his cow leather toga, went out into the night.

My mother replenished the fire; we talked for a time; again she replenished the fire, so that the lodge would be bright and cheerful when my father returned. But he did not come, and, so sleepy that we could no longer sit waiting for him, we went to bed.

At daybreak my mother came across to my couch and awakened me, crying: "Your father has not returned! I am terribly worried. We must try to learn where he is, whether some one may know where he went, and for what reason."

I hurried into my clothes and was tying my moccasins, when my father came in, and, without a word to us, crossed the lodge and seated himself upon his couch. He looked very sad; his hair, always neatly braided, was in disorder. He made no reply when my mother told him that we had been terribly worried over his all-night absence, and asked where he had gone. She hurriedly built a fire, set before him a bowl of water, and then began preparing our morning meal. As one in a dream he stared at the bowl of water; after a time he washed his face and hands, and combed his hair. Then again he sat staring at the fire with sad and worried eyes.

Said my mother to him, when he refused the dish of meat that she had nicely broiled: "Many Swans! Oh, my man! Why are you so sad, so worried?"

"I have done a great wrong! Don't ask me what it is! I am terribly, terribly ashamed of myself," he replied, and would say no more.

Then, when Sun was well up into the blue, he took up his bow-and-arrows case and a rope, and said that he was going to round up our horses and drive them to water. When I made ready to accompany him, he told me to remain with my mother, and said he would likely be out all day.

After a time my mother and I went out to the edge of camp, and from there, we saw him drive our band to water. Turning them back to graze, he rode up to the north rim of the valley, dismounted, and sat down upon the ground; and though we could not see his face, we knew that he was still worrying about what he had done in the night.

Time and time again, during the day, the while we watched him sitting lone up there, my mother said to me: "Your father is a real man. He would never wrong any one. I am sure that he is worrying himself sick over something that is of no account whatever."

He remained up there on the rim, without food, without water, until Sun was low above the mountains, and then, descending, he drove in our fast buffalo runners and I helped him stake them around our lodge. He was still sad and silent, but he ate a little meat, drank some water, and filled and smoked a pipe.

Finally he said to us: "My woman, my son, this evening, pack up carefully all of our belongings, for tomorrow we leave this camp."

"Why do we that? Where do we go?" my mother asked.

"I do not care to explain. I simply say that tomorrow we leave this camp," he replied shortly.

He was so sad, so short with us, so strange, that we dared not

further question him. My mother got out her many parchies, and I helped her to fill them with our many things of use.

In the morning, when I brought in our horses and we began saddling and packing them, the people gathered around and asked where we were going, why we were leaving camp. My mother and I could not answer their questions, and my father would only say to them: "We are going off south for a time. I have my reason for it."

"But it will be too dangerous. The plains are alive with enemy war parties," Chief Three Bears cried.

"I have a powerful protector; my buffalo medicine," he replied.

I overheard men saying to one another that my father was a man of one mind; that it was ever useless to argue with him, useless to try to turn him from anything upon which he had set his heart.

My mother had taken time to cross the great camp circle and tell my grandmother of our going. As we got into our saddles and started out with our many packed and many free-backed horses, we could hear her crying bitterly over our departure. My father took the lead, telling us to herd the band along after him as fast as possible. We soon climbed the south slope of the valley, and struck off straight south across the great plain, my mother and I very sad of heart, fearful of what might be ahead of us. We traveled steadily all through the long day and well into the night, and came to rest on the banks of High River, where, from the foot of the great mountain, it issues out upon the plain. We did not set up our lodge; we picked a few of our best horses, hobbled some others, and, spreading our bedding, lay down and slept.

We were up the next morning before Sun appeared, and, while my mother built a fire and prepared our early meal, my father and I cared for our horses and bathed in the cold river.

He was more cheerful than he had been for many a day, so, while we were eating, my mother said to him: "Many Swans, whither are we going?"

"Nowhere, today. Here we rest until night, and then pack up and go on south, to avoid any war parties of enemy tribes that may be traveling along the foot of the mountains."

"But that doesn't answer my question," she went on. "I ask you where in the south we are going; are you taking us to one of our brother tribes, the Pikuni, or the Bloods, or our friend tribe, the Big Bellies, camping here and there on Big River, or some of the streams running into it? No doubt at this time one or another of them will be trading their winter catch of furs at the Big Knives' Many Houses Fort, on Big River."

AS a black cloud suddenly hides Sun from us and darkens the earth, so did my mother's question change the expression of my father's face. His somewhat cheerful manner vanished. Frowning and sad-eyed, he stared long at our little fire, and at last he replied: "We go not to a camp of our brother tribes. We go where I shall not be constantly reminded of the shameful thing that I have done. Woman, we are going to live with the Crows."

At that, my mother shrank back as though she had been struck, and I shivered as though chilled by a winter wind. Then she cried: "The Crows! Of all enemy tribes, the worst! You mean that you are taking us to be killed by them!"

"No. They will not kill us. My sacred buffalo

* The Big Bellies are the Gros Ventre tribe of Indians. The Big Knives were the American Fur Company. Many Houses was its Fort Benton post, on the Missouri.

The Cheerful Plowman

That Factory



THAT'S where they work, poor driven souls, they labor in those smoky holes for one thin check per week; that fact increases, charm on charm, the boundless beauty of my farm, it sends blood to my cheek! That's where they work, tied to a bench, chained to a desk or monkey-wrench, cooped up six days per week!

That's where they work, how glad am I to have a chance to view the sky through leaves of graceful trees; that's where they work, it seems a shame that they should miss the living game, too bad their souls must freeze! That's where they work, while endless land is waiting

for the human hand to scatter beams and pens.

I used to grumble at my lot and felt that life was just a plot to put me in the shade; I thought the farmer was the goat, with slumping price on foot and out, with debts of heavy grade; but they work there in that grim place with nervous hand and sawed face, with jamdlice, I'm afraid!

That's where they work, robbed of the sun, that's where they work till day is done, poor prisoners that they are; they have no time to whiff the smell of flowers that decorate the dell, to speed on plow or car; they have no time to chase the bee; their lot is wretched, mine is free; my life is more than par! A. E. T.

medicine will protect us: of that, I had assurance in my vision last night. I saw winter snow gone, except for a few drifts, and new grass sprouting in places of damp earth. So is it that, when I awoke, I knew that I was to see the coming of another summer, and decided that we would go to live with the Crows."

"But your vision is no assurance that your woman and your son will live to see another summer," said my mother, very sadly.

"My future is also the future of you two. And now, let me hear no more about it. We are going to live with the Crows!" he replied shortly.

To my mother and me that was a day of terrible unrest. We felt certain that my father was taking us south to be killed by our bitterest enemies. Time and time again we asked each other what it was, the shameful thing that he had done, that he must take us from all that we loved; from the peace and safety of our great camp to the constant dangers upon the long south trail. Heavy, very heavy were our hearts when, at dusk, we saddled and packed our horses and went on.

NIGHT LIGHT soon appeared, shining so brightly that the night was almost as light as the day. During the winter our people had not hunted so far south as High River, so we here found the country alive with herds of buffalo, antelope too, and so tame that they fed but a little way when we approached them. All through the night, as we followed the south trail across the foot of the great mountains, we were constantly in sight of the herds, and when, at daybreak, we halted upon the top of a high ridge, for a good look at the country ahead, my father said that never in all his life had he seen so many and such large herds of the animals as were then about us. And everywhere they were quietly grazing or resting, and that eased our minds, for it was a good sign that the country was free from enemy war parties.

After a short rest upon the ridge-top, we remounted our horses and went on, and, when Sun was about halfway up to the middle of the blue, we arrived at Old Man's River, and halted in a grove of cottonwoods. As we were taking the loads off our pack-horses, we heard, just below us, the approaching rush of many animals, and ran to the edge of the grove to learn what might be the cause of it. A large herd of buffalo were coming in to water, and the younger animals were so thirsty that they had taken the lead and were running across the bottom and plunging into the river, leaving the older ones and cows with calves to string on slowly after them. My mother urged that we kill one of the animals, and, after some thought, my father told me to do what I could with my gun. Upon hands and knees I crept out from the grove, well hidden in the sagebrush, and made careful aim at a cow of two years that had drunk and come back from the river to graze. Whoom! My bullet pierced her lungs, and she made two or three jumps and fell! The herd, frightened by my shot, ran off down the valley. At that, we hurried back into the grove and finished unpacking and caring for our horses, and then returned to lather my kill and take the tongue and liver and choicest parts of the meat. I was so pleased with my success with my gun, and my mother was so proud of my sureness of aim, that we forgot, for the time, the terrible danger into which my father was leading us. She sang little songs as she broiled the tongue and slices of the liver for us, and was quite talkative while we ate the good food.

Said my father, when we had finished eating: "Just above here, as you know, is the place where, in the long-ago, Old Man gambled. There, just as he left them, are the huge round stones that he and Red Old Man rolled, when they there played so fiercely one against the other. Well, that is a very sacred place, so I am going there to pray, to sleep, and perhaps to obtain a revealing vision for our guidance. Fear not, you two, for you are safe enough here. Sleep well, and if you awake before I return, cook more food, eat, and patiently await my coming."

We made no reply to that, neither my mother nor I. Sadly enough we watched him take up his sacred medicine bundle, his bow-and-arrows case, and leave us. Heavier than ever, our fears were back within us; more than ever we longed to be back in the great camp of our people. (To be continued.)

* Napi (Old Man) was the principal god of the Blackfoot tribes until they obtained, from more southern tribes, the religion of the Sun. He was believed to have created the world and all life upon it, and then to have gone West, after promising the people to return to them at some future time.

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Will It Pay?

Will it pay to spend a month or more this winter at one of the State Colleges, taking short course work in agriculture? "Of course it will pay" would be the proper answer for most farm reared young men. But, it has occurred to me that comments from young farmers who have taken some of the short courses would be especially helpful to those who have not yet reached a decision about this very important matter.

The following comments are taken from a letter received from a young man who is growing vegetables and potatoes for market:

"If I should try to estimate the value of the training given me in the short course work at State College, I feel safe in saying that it was worth twice what it actually cost. Last year we were able to produce very early tomatoes and cabbage, and I also belong to the 400-Bushel Potato Club. I am trying to get several of my friends to go with me to Penn State this winter for more short-course work."

Research Work

Another short-course student, who has become a signally successful farmer and also a salaried officer in a very important organization, writes:

"The winter short course, I feel, did a great deal for me in giving me an

had enough to supply the demand. And the credit is due to the professors who taught in the short course.

"Ever since I came home, I have praised the winter short courses at every opportunity. I have two young men interested now, and I'm going to keep right after them."

One of the oldest students, who took some work more than 30 years ago and who now enjoys a national reputation, writes very enthusiastically as follows:

"I have always envied the college educated man. What little I had was like getting a peek into heaven, then having the door slammed in one's face. But even that look has been an inspiration to me all my life. In those days a young man was considered just an ordinary fool who wasted his time studying agriculture. In fact, I was a little ashamed of it myself. But the vision I caught through my association with the instructors and fellow students has been of inestimable value to me."

The program of work in all the colleges which offer short courses in agriculture is highly diversified. At the Pennsylvania State College it will embrace soils and soil fertility, cereal and forage crops, farm machinery, farm management, stock judging, feeding farm animals, testing dairy products,



Jersey Pasture Scene, Highland Farm, Westmoreland County, Pa.

insight into college work and activities and making it possible for me to use to a much greater extent the results of research work carried on by the Experiment Station, and to apply some of the information which is given to farmers by the county agent.

"The problems on a farm at the present time are such that a person who has received no training of the character given in the winter short courses is very much handicapped. Of course, I would not want to give the impression that I think the winter short course is a college education, but it did put me in a position to study some of the larger agricultural problems of these times, which I could not have done had I not had a little college training as a background."

Business Increased

Most of the young men who have taken short-course work are enthusiastic about the benefits. Here is an example:

"I am always glad of an opportunity to tell what Penn State has done for me. Yes, I left jammed full of so many ideas that I didn't have time to try them all out, but those I did try worked splendidly and the rest I can use next year. I am safe in saying that our business increased nearly 100 per cent this year. Although we planted nearly twice as many vegetables this year as we did last year, we never

fruit growing, vegetable gardening, plant diseases, farm poultry, insects, farm slaughtering, farm forestry, potatoes, livestock management, animal diseases, cow testing associations and advanced registry, and rural life.

In addition, three special Dairy Manufacturing short courses are offered: (1) Testing Dairy Products and the Manufacture of Butter and Cheese, January 3 to 19; (2) Ice Cream Making, January 21 to February 2; (3) Market Milk and Milk Control, February 4 to 16.

The short course work at the Pennsylvania State College will be given from January 3 to March 1, 1929. An incidental fee of \$10 is payable by all winter course students in the general agricultural course; for the dairy manufacturing short courses there is a fee of \$10 for each course. Room and board will cost about \$10 a week.

These practical courses are open to all men and women who are willing to study and who are well grounded in the three R's. R. L. Watts.

Clear Titles

MUCH more attention is paid to the importance of securing a clear title when farms change hands than formerly. Time was when a search was unusual, but today no real estate changes hands without one un-

less the title is absolutely beyond question.

In some ways these are rather complex times, so many things enter into farm life besides just raising crops, selling products and producing more.

E. M. A

Chantaurqua county, N. Y.

The MARKET PLACE

By W. R. WHITACRE

A GROUP of about thirty Lehigh county potato growers, accompanied by Mr. A. H. Hacker, county agent, toured the Philadelphia potato market on Wednesday, November 21. The object of the trip was to see how their potatoes compared with those from other sections of the country and to get acquainted with dealers and market conditions. A car of Idaho baking potatoes attracted considerable interest, especially when they learned that they were selling at \$2.20 per 100-pound sack, while the best Pennsylvania stock on the platform brought \$1.30 per 120-pound sack.

It is a little hard to understand why these Idaho baking potatoes should bring so much more than those grown in this state, and it is harder to explain. With the exception of this car of Idaho potatoes, there were practically no other potatoes but Pennsylvania's offered. In other words there were at least ten times as many from this state as from Idaho. These baking potatoes fall into a special class, since they are all large, carefully selected and graded. There is some hollow heart but comparatively little as compared with Pennsylvania stock of equal size.

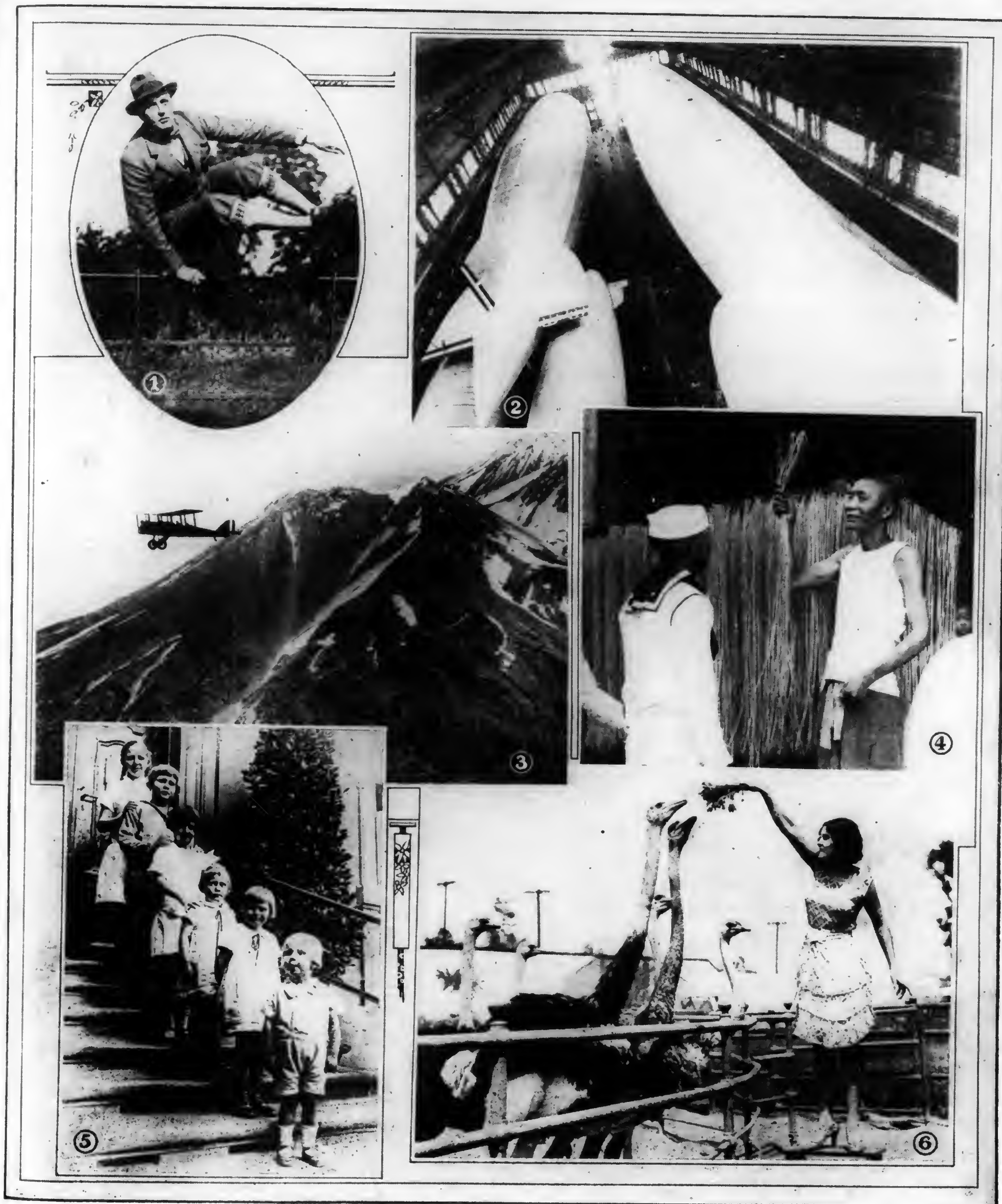
The majority of buyers such as retailers, chain stores and hucksters are not interested in a large potato of this type but prefer a smaller tuber of good quality. The baking potato has only a limited outlet, going chiefly to the more expensive hotels and restaurants where patrons do not object to paying a big price for a large baked potato. For this reason a car of Idaho potatoes is likely to remain on the platform for nearly a week before they are all sold, and if the supply increased to any marked extent the price would undoubtedly drop sharply. There is another angle to consider; the freight and other charges on these potatoes average around \$1.00 a 100-pound sack. That cuts the price of the grower considerably below \$1 which is less than most Pennsylvania growers have received from potatoes of equal quality.

I do not believe that it would be profitable for Pennsylvania growers to put up baking potatoes. There are conditions under which it might be profitable, but only in comparatively small quantities. If a few growers were able to produce a few large potatoes free from hollow heart and were willing to put the time and expense necessary to make a good pack, they could probably build a small factory trade.

Unless the potatoes were at least equal to Idaho potatoes in cooking quality, grade and pack it would be difficult to sell them for enough to cover the added expense. Theoretically, the better potatoes or any other commodity is graded and packed, the more money it will bring and the more it will yield. Practically, this does not always hold true, especially in a market of low prices. The average grower, however, has plenty of room to improve his grade before he will reach a point where it will cease to be profitable.

I believe that one handicap that many growers work under is the lack of adequate space to store and pack their product, and the time will come when a suitable grading and storage room will make it possible to put up a better pack more economically.

EVENTS CAUGHT BY THE CAMERA



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1. Future King of Norway demonstrates his athletic skill. Crown Prince Olaf of Norway clearing a fence during a stroll around the grounds of Appleton House, where he arrived to join the Queen of Norway for a holiday.

2. The giant of them all. Photo shows a full house in the hangar here—the U. S. dirigible "Los Angeles" on left with two navy blimps under her fins, and the huge "Graf Zeppelin" on the right. The Los Angeles with the two blimps could fit into the Graf Zeppelin with over 1,000,000 cubic feet of space.

3. Summer shows are no novelty to the aviator who rides across mountain tops in his plane. The above photo shows a navy plane speeding past Mt. Shasta, California, en route from the Oregon line to San Diego.

4. "Chow Mein" in its native land—American sailors see how noodles are made for export to U. S. chop suey restaurants. Photo shows sailors Walser and Harmon of the river gunboat, U. S. S. Mindanao, inspecting a noodle works at Ichang, China. The strings of vermicelli are being dried. Later they will be shipped to American chop suey restaurants for the making of the toothsome dish, Chow Mein—also war men and yat gar mein.

5. The grandchildren of President Von Hindenburg of Germany visit their grandpa on his 81st birthday. They were the first to congratulate the former Commander-in-Chief at his home. Photo shows from bottom up—Berndita von Pontz, Gertrud von Hindenburg, Holsa von Hindenburg, Victoria von Pontz, Hans von Brockhausen and Maria von Pontz.

6. Photo shows Rafael Torres feeding a bunch of eleven to fifteen chickens. A California real estate man might caption this picture: See how big the chickens grow in California!



Put those loafer Cows on the Profit side

Just a little more milk from the cows that lag—and the whole picture is changed! Dairy economists state that a one-tenth milk increase will actually double the net profit in the average dairy. Why, then, be satisfied with just what your cows can accomplish unaided?

GOOD diet is not enough. The modern drive for more production, the forcing with rich, hard-to-digest foods presents a burden out of line with the physical ability of the average cow. During the housed-in period many a milk dollar slips away through ill and production losses. Digestion or assimilation lags. Feed that cost good money to buy fails to register in the milk pail—goes to waste.

To carry a dairy herd through the rigorous winter period without regular conditioning aid for at least the backward milkers is like running a motor without oil. Results are disappointing—a breakdown is invited.

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Farm & Dairy By L. W. LIGHTY

We Do Not Need More But Better

NOT a few writers and speakers love to paint very rosy pictures of their specialty and directly or indirectly try to induce more folks to take up that particular line of production. Not long ago the poultry missionaries were probably the chief sinners in this direction, but the dairy teachers were not far behind.

This is surely a big mistake. Several years back eggs were a dollar in New York and in our county seat, York, Pa., we sold eggs for 90c a dozen. From the house-tops the poultry missionaries called out what phenomenal profits were realized and soon the country was swarming with chicken keepers and last year the highest for eggs was 55c and that for but a short time and the grain was higher than any time before and many poultry keepers lost money.

Every time I read an article or hear a speaker who is trying to induce more men to go into producing dairy products I realize that a great mistake is being made, because at this time practically all the dairy products this country can or will consume are being produced, and if we produce more the surplus will become unmanageable and we will be in the position of our wheat growers, that is, we have to go to the foreign markets and take world prices instead of American prices as we pay for American labor now.

By advertising and propaganda we have induced the American people to use more dairy products, but at the same time we have more than kept pace in production with the increased demand. We have better cows even if we have fewer and this is as it should be.

Let Us Apply Common Sense

When any line of production becomes over-crowded demoralization results. For several years supplying the market with pork was right profitable. Wheat growers, peach growers, asparagus growers were induced to become hog growers and in 1927 the selling price dropped quite below cost and there was a woeful reckoning and the pork growers who came to get rich quick moved out wiser if sadder men. In passing we should note that the turnover is much quicker in pork and poultry production and it is so much easier to get out of it at not so great a loss as is the case with the dairy producer.

It is well for the prospective dairy producer to know that our market is pretty well saturated now and while men are quitting all the time and new ones needed to take their places, it is decidedly unwise to embark hastily in this line of production without giving the matter careful consideration.

It is always well to remember that the man who has become skillful in his line can exist on a narrower margin than the newcomer who has everything to learn. The level-headed man who has had experience knows that in most any line of production on the farm there is a fair income if the proposition is conducted in a business-like way and we stick to it year in and year out. But at the same time he also knows that there are some very lean years and again some fat years and it is decidedly disgusting to have men take the fat years and omit the lean years in painting the story, but at the same time it is a crime toward those who are thinking of embarking in that line of production. Get the results of the good years and the poor years and then present the average and the man looking for a line of production will get the information he needs.

Too Much and Too Little

WHERE one man feeds too much a dozen do not feed enough and many of those who feed seemingly enough feed unwisely. Dairy producers of today are on the average better feeders than were those a score of years ago. Then thousands of cows were fearfully emaciated by the spring. That number is greatly lessened, yet it is entirely too great.

Saving feed on animals that are worth keeping is a losing operation in every way. Growing animals are stunted and producing cows fail to yield a profitable maximum of milk and go dry too soon and then have to be fed and yield nothing. You may save a hundred pounds of feed and let your cow lose weight and become poor and go dry, and later you have to feed two hundred pounds to build her up and get her to her normal milk flow. This is practically what happens in under-feeding.

Overfeeding is wasteful in the fact that the animal wastes some of the feed and takes on useless weight, yet with the cow, or particularly the heifer, we get most of that added weight later in greater milk production if the animal is a real dairy cow. Often I have had heifers that were quite fat when they came fresh the first time and they gave me a wonderful production the first period but by the end of the milking

Many Times a Champion



Fern's Rochette Noble was grand champion Jersey bull at the National Dairy Show in 1925, 1927 and 1928; also grand champion at the Eastern States Exposition in 1925. His sire, Fern's Wexford Noble, was grand champion at the National in 1922, 1923 and 1924. He is owned by P. H. B. Frelinghuysen.



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ing period they were only in common order.

We may lose a little in overfeeding, but we easily lose much in underfeeding.

The Water Is Very Important

IN the winter many cows do not get or drink enough water. It is too cold, it is hard to get, they do not have a chance to get it often enough, the boss cows interfere and other factors contribute to this milk limiting factor.

Do not forget that 87 to 88 per cent of the milk is water the cow puts in and if she does not have the water she just reduces the quantity of milk until the water reaches to make the milk right. It pays to see to this matter.

Dairy Topics

Responsive Cows

IT is rather an easy matter to classify cows with regard to their ability to do what one wants them to do. We have the cow that turns feed into milk and at the same time keeps her body in good condition. That is what most dairymen want her to do. Then we have the cow that responds to feed but she puts it into fat instead of milk. She is not a desirable cow for the dairy herd, but we will not consider her a total loss, because we can realize something out of her by the beef route.

Then we have the cow that does not respond to feed in either way. She eats as much as or more than either of the two just mentioned, but she turns none of it into milk neither does she seem to get fat. We will have to classify her as a scrub. And when we speak of scrub cows we most always think of them as being grade, but it is possible for them to be pure-bred and still be scrub producers. In either case they have no business in the modern dairy herd.

With regard to the good cow that turns feed into milk we have all kinds of variations from the ordinary cow that produces a hundred and fifty pounds of butterfat in a year to the aristocratic queen of the stanchions that makes a world record. It is only lately that a standard has been set for cows to reach before they may be retained in the herd and classed as really profitable specimens. They must produce seven thousand pounds of four per cent milk during each lactation period, which means about two hundred and eighty pounds of butterfat. How many of our cows come up to this standard?

Something to Attain

NO one is advised to dispose of the cow that makes only two hundred pounds of butterfat in a year. She may be a valuable cow even if she does not come up to the man-made standard of seven thousand pounds of milk per year. She may have excellent qualities which we wish to retain in some of her progeny, and it would be going beyond the limits of expectation to advise the disposal of all cows under this standard.

But it does give stability to the breeder to feel that he has an objective in view when he starts to improve his herd. When he has a cow that comes up to the standard he may reasonably say that he has a good cow, and by the word "good" mean one that is profitable. If he can go beyond that point and breed up a cow that will give more milk he can justly feel that he is on



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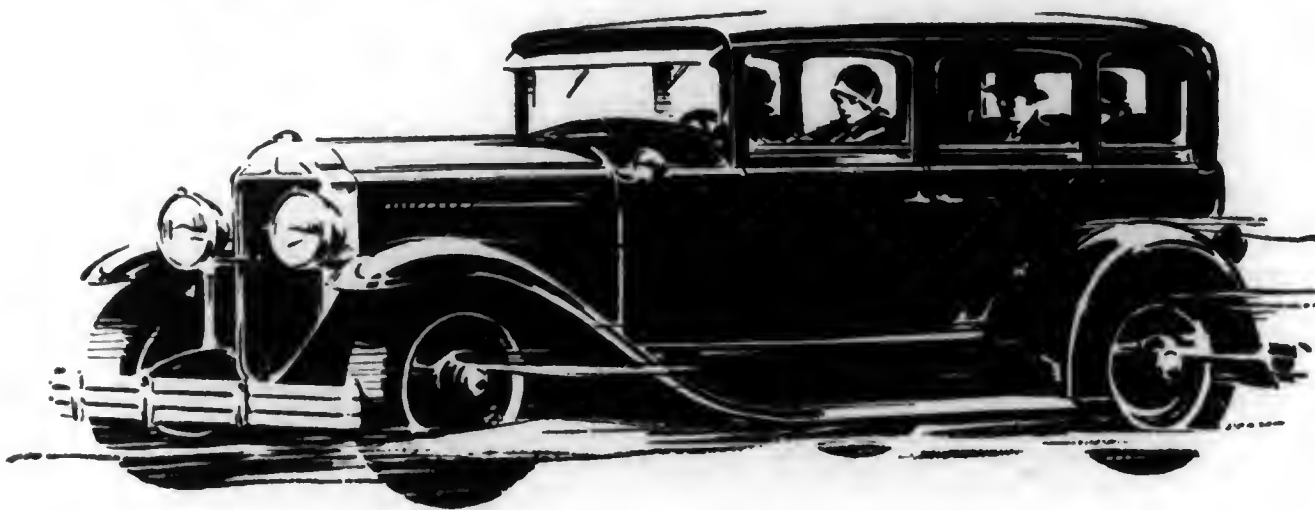
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the right road to at least one cow in a class by herself. The dairyman who could breed up a whole herd to that standard might be termed fortunate or lucky. They are few and far between even in this advanced age of dairying.

When Weaning the Calf

WHEN a calf is weaned in cold weather it is advisable to do it as gently as possible. It is presumed that dairy calves are raised by hand since it is too expensive to raise them any other way unless they are more valuable than the general run of dairy calves. It is surprising how early the little fellows will chew at straws of hay and other material for roughage. They get at this earlier during winter than they do in summer. Perhaps there is a greater demand for it during the cold weather. It seems that they learn to eat most easily at this time of the year, but we do not want to feed the calf milk all winter long. The better plan will be to put it on dry feed gradually. Where the calf cannot be fed commercial calf meal it may be successfully raised by feeding bran in the milk, and as weaning time comes on increasing the bran and diminishing the milk. It is surprising what a little milk will do for the growing calf. If it may have only a pint at each feeding during the time it is being weaned it will be a great help. If it is impracticable to provide the calf with this small amount it should have an abundance of good flesh-producing feed in the place of milk.

Winter Shelter

IT is always a question with us when to put the cows in the barn for the winter. They seem to get tired of the stanchions before spring comes and we can let them sleep out on the ground where they have formed the habit of sleeping before man began to work them both summer and winter.

If we happen to make a mistake and guess wrong on the weather and it snows on them some night when they ought to have been inside we pay for it, for they withhold the regular amount of milk for their neglect. The same thing happens in the spring. Warm weather comes and we want to get rid of cleaning out the barn every morning and we leave them out in the lot for the night. A cold rain or belated snow comes and we are sorry.

Perhaps it is best to be on the safe side, but human nature is much the same the world over and we like to get rid of as much work as we can, giving us an excuse for it that we make more money when we do not have to work so much. For that reason we leave the cows out as long as we feel safe in doing so during the fall.

Milk Prices

OCTOBER milk brought three dollars per hundred pounds in our locality. The price for November milk is promised at \$3.15 net. It is likely that it will go higher than that by December. It all feels very comfortable over on the producer's side but we must not forget the consumer on whom we depend for that three dollars. If he is getting the money as easy as we are we have nothing but congratulations both coming and going. On the other hand it is possible for a commodity to get so high that the public will not buy it. Let us hope that we will always have a good healthy market for our liquid milk.

The U. S. Census

SOMETIME during the year 1930 the census man will call and he will want a lot of questions answered right off the bat. He will want to know how many pounds of butter were made on the farm, how many gallons of milk produced, how many dozens of eggs laid, how many persons in the home are gainfully employed, and lots of other things.

It will be well for us to keep some kind of record for him during the year. Statistics are worthless unless very nearly correct. Guessing how many gallons of milk our cows produce is

West Virginia Dairy Association

THE West Virginia Dairymen's Association held its annual meeting and banquet at Martinsburg, Nov. 8th. The following day those in attendance joined on a tour through Berkeley and Jefferson counties in which some of the outstanding dairy farms were visited.

The large attendance and the close attention given to all phases of the dairy industry throughout the two days is indicative of a growing interest among West Virginia farmers in the dairy cow and her products.

For many years this "Mountain State" has been noted for its beef cattle and its sheep. It still is for that matter. But gradually the milk sheds of Washington, D. C., Baltimore, Philadelphia and Pittsburgh are widening. The territory of West Virginia lies in the path of all of them. The development of a fine highway system throughout the state is bringing the farmers much closer to these larger milk markets, and they are not slow in seeing the new opportunity for greater and more consistent profits which the dairy industry promises.

While the program of the meeting was varied one, still the predominating note through it all was the importance of using good dairy sires. The cattle population of the state is predominantly of the beef type. To replace this type with dairy cattle at once would be costly. The use of dairy sires on native cows is a slower but more economical way of changing.

The Dairymen's Association recognizes this and one of its main activities, according to President Wilson's report, is to make it possible for farmers to secure good pure-bred dairy bull calves. It is long so in a practical way. A number of the breeders of pure-bred dairy cattle in the state have donated promising young bull calves to the Association which in turn placed them on farms in different sections of the state with an agreement with the farmer raising the calf, that the neighbors can have the use of the bull at the rate of \$2 per service and that the bull be sold at three years of age. Half of the returns shall go to the man raising the bull and half to the Association. At present 38 bulls are out in the state under these conditions.

At the afternoon session Dean Fromme of the State University stressed the importance of better support of a general research program at the experiment station. It was evident from his remarks that West Virginia, like the state of Pennsylvania and several others, is rather slow in making its experiment station sufficient funds to tackle the many pressing problems facing local farmers.

He was followed by Prof. H. O. Henderson, new head of the Dairy Department at Morgantown, who explained the significance of new discoveries in the dairy field. J. C. McDowell of the U. S. Department of Agriculture in a very interesting manner reported his findings in a nation-wide study of cow-testing work. He stated that one-third of the sires used on herds enrolled in these associations actually pull the loads down in production. One-third are in raising the production while the other one-third are not influencing production much one way or the other.

The annual banquet was held at the Sherando Hotel. It was a very pleasant affair, for music, wit and serious thought were well mixed. During the evening West Virginia's dairy honor roll was presented. It contained the names of 23 farmers in the state whose herds averaged better than 300 pounds of butterfat during the past year. "White Pine Farm" at Buffalo, W. Va., led the list with an average production of an even 400 pounds.

H. D. Allebach, president of the Interstate Milk Producers' Association, spoke on milk marketing. He stressed three features in successful milk marketing. First, producers must aim to supply their market with a nearly uniform production throughout the year as possible. Second, the quality must be good. It cannot be too good. Third, they must educate the consumer to appreciate the value of milk to human health.

E. V. Hannan, editor of "Dairy Farming," painted an optimistic picture of the future dairy industry in this country.

The territory surrounding Martinsburg is beautiful in scenery and rich in historical associations. Its limestone valleys are covered with beds of bluegrass as fine as I have seen in many a day, and its hillside are dotted with the famous Shenandoah apple orchards. Our tour on the second day led us amidst all of these. Miles Horst,

Uncle Charlie says—



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Established 1881



Blood Tells in Beef Making

Steers on Pasture

FULL feeding steers on pasture gave faster gains, more efficient use of corn, and more profit than summer feeding in the dry lot, in tests just closed at the Ohio Experiment Station.

From December to June two lots of steer calves were fed together a ration of silage, hay and linseed meal. Early in June one lot was turned to bluegrass pasture while the other lot remained in the barn. Both lots were full fed ground-shelled corn and linseed meal. The barn lot was fed silage and mixed hay for roughage.

Twelve and three-quarter pounds of corn and two pounds of linseed meal fed daily to each steer on pasture produced two and one-third pounds of gain. A similar amount of concentrates, with six pounds of silage and two pounds of hay gave a daily gain of one and nine-tenths pounds on the barn fed cattle.

The cattle fed in the barn showed sleeker coats and appeared fatter than the pasture cattle in spite of their much smaller gains. If this was the case the pasture cattle must have grown more. This apparently happened.

Both lots were shipped to the Pittsburgh market, where the dry lot cattle sold for \$16.50 per cwt. and the pasture lot for \$16.25.

There was a shrink of 4.4 per cent in the weight of the pasture lot between home and market weights. The dry lot cattle lost 1.8 per cent of their weight in going to market.

A Record Litter

THE American Poland-China Record Association offers a \$50 gold watch for the heaviest average weight per pig in litters of from six to twelve pigs. This contest follows the well-established practice of weighing at 180 days.

A new record has been made by Perryman & Zeigler, well-known Poland-China breeders, Gatesville, Texas, with a litter of seven pure-bred Poland-Chinas. At 150 days of age this litter averaged 277 pounds. At 180 days the average weight per pig was 341-1-7 pounds or a total weight of 2,388 pounds. Thus far this is the heaviest litter of seven pigs produced in the United States, all breeds competing.—Geo. W. Davies.

Iowa Pig Raising Contest

OVER ten tons of pork from ten litters was the record set by C. C. Verwers in winning the pig-raising contest in Iowa this year. His ten Chester White sows, bred to a Spotted Poland-China boar, produced an average of 8.8 pigs per litter, and the litters averaged 2,147 pounds at six months of age, exceeding last year's Iowa winners, produced by Adolph Larsen, by 200 pounds. The pigs averaged 244 pounds each, or 22 pounds more than this year's Missouri champions. Three old sows saved 32 pigs, while seven gilts saved 56 pigs.

All the pigs were white and were rather rangy in type, not fat enough to go into the lean class and not thin enough to go in the bacon class. They

above the day's top. A special test was run on them from the killing standpoint. It showed the yield of ham about one per cent above the average, and the yield of loin and belly about one-half of one per cent above the average. The hogs dressed 78.27 per cent.

Colt Clubs

SIX gold medal colt clubs have been organized in Pennsylvania. C. A. Burge, horse extension specialist of the Pennsylvania State College, reports.

Two of these clubs are in Westmoreland county, and there is one in each of the following counties: Franklin, Indiana, Fayette and Beaver. Nearly one hundred colts have been entered.

Rules of the clubs call for initial weighings at the time of entry and then another weighing a year later. Provided the colts qualify in the showing as well as on the scale, all animals gaining 600 pounds in a year will win gold medals; 500-pound gains will merit silver medals, and 400-pound gains will be awarded bronze medals.

Feed and Type

THE effects of feed on select bacon type and quality of pigs was the subject of a three-year experiment at the University of Alberta. Self-fed pigs showed a greater tendency to develop the desired bacon type than did hand-fed pigs, and tankage produced a greater proportion of "selects" than skim milk, but the carcasses revealed more "Wiltshires" in the skimmilk group. Little difference was noted in quality of carcass between pasture and dry-lot fed animals, and exercise had no apparent effect in inducing greater length of carcass. The conclusions of the experimenters were that "generally speaking carcass dimensions were not modified by any particular ration or method of feeding."

Ration for Growing Pigs

C. J. S.—"I have three pigs 12 weeks old which don't seem to be doing right. Their hair looks dead and they don't eat more than half their feed. I feed them middlings and wheat bran."

The feeds you are using do not make the best ration for hogs. I would suggest that you make up a balanced ration of the following: 50 lbs. corn meal,



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No matter how cold the morning or how hot the road, your horse can work with steady regularity if shod with Diamond Frost-Proof Calks and Shoes.

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Tests show increased profits, as high as \$1.50 per cow per month—mighty good pay for 15 minutes per cow for clipping. The grooming time saved quickly pays for the machine.

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Hand power machines as low as \$14.00. Electric complete with 1/2 H. P. motor as low as \$45.00 F.O.B. Chicago. At your dealer's or send \$2.00, paying balance on delivery. Satisfaction guaranteed or money back. Free catalog also gives many proofs of how clipping pays.

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Dept. 315 8600 Roosevelt Road CHICAGO
39 Years Making Quality Products
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To purchase a farm or land.
To provide bldgs. or improvements.
To buy stock or equipment.
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Ohio-Pa. Joint Stock Land Bank.

30 lbs. wheat middlings, 20 lbs. ground oats and 10 lbs. tankage or fish meal. This ration you will find much more appetizing and should produce far more growth than the one you are now using.

H. H. H.

Apples for Hogs

Will you please give me what information you can in regard to the feeding of apples when fed to hogs which are fed on corn and tankage? It seems to me that every bushel of second-grade apples that is kept off the market helps the price of the better grade.

James D. Allen.

WINDFALL or second-grade apples make a satisfactory feed for hogs, when fed in combination with corn and tankage. The chief nutrients in apples are the sugars and to properly balance the ration they must be supplemented with some protein feed, such as tankage. Fed with a proper combination of corn and tankage one hundred pounds of apples will replace from ten to fifteen pounds of the corn in the ration.

F. L. Bentley.

Curing Pork

IN curing pork scrupulous care and cleanliness are fully as essential as the salt, sugar and saltpeter. K. F. Warner, meat specialist, of the U. S. Department of Agriculture, elaborates this point.

"One hundred pounds of meat," he says, "can be cured with three pounds of salt or twelve pounds of sugar and widely varying amounts of sugar and saltpeter, but unless carefulness is included, the resulting product will be neither economical nor palatable. The hog complains considerably nowadays about the fussy crankiness with which grandpa puts the meat in cure, but grandpa learned his lesson in the hard school of experience, and he knows that unless meat is put down with care, refined almost to the degree of crankiness, the result will be unsatisfactory."

Chalk Face Merino

CHALK-FACE or "frosted-face" is one of the defects in some Merino sheep that can be eliminated easily by selection. Careful breeders are ever on their guard against this undesirable character. While fine silky hair on the face and ears of the best Merinos is the rule, in some otherwise good individuals the hair is coarse and chalky in appearance.

This character is very easy to eliminate by selection, according to B. L. Warwick, in charge of animal genetics at the Ohio Experiment Station. In a study of the character he finds it dominant in nature, that is, appearing in the offspring if present in either parent. This is in marked contrast to recessive defects, which may be hidden by the generation after generation in some of the animals, appearing in the offspring only when both parents carry the factor, which may be concealed.

In culling a breeding flock for chalk-face, Dr. Warwick would discard all animals that show even a small number of chalky hairs mixed with the fine silky hair on the face or in the adjacent wool.

So far in his breeding experiments no mating has resulted in chalky offspring when both parents were entirely free from chalky hairs.

Noted Angus Bull Dies

BLACKCAP REVOLUTION, famous bull, died at the farm of his owners, Harmon & Ryan, Harlan, Iowa, on Nov. 3. He was bred by Esther & Ryan, who sold him to J. D. McGregor of Brandon, Manitoba. He made a sensational record at the International and was sold to H. O. Harrison of Woodland, Calif., for the record price of \$15,000.

When this bull was combined with the one owned by Fisher & Ryan this bull was one of the sires which helped build up the present Harrison & Ryan herd. His son Revolution 7th is taking his place as a

An Encounter with a Bull

I TOO was very much interested in perusing the tales of bull nature, for I was in a most precarious position one time many years ago. We had a bull, about fifteen months old, that we had raised and he was (apparently) as gentle as a kitten. He was kept in the pasture with the cows. At milking time, the barnyard gate was opened and he would come down to the house where I fed him parings every morning. I had them in a pan and held it while he ate. Often he would rub his head against my arm, as loving as a cat.

It was in the latter part of June, 1881, and our eldest daughter was about five and a half years of age. At night she frequently went after the cows (we had only four or five) and they were kind and gentle. We feared not for her safety, although the pasture was over on the other side of a small hill, quite out of sight or hearing from the house.

One night after driving the cows home she came to the house, and to me, saying, "Mama, I am afraid. I don't want to go for the cows, Jimmy bellowed awfully." I told her she need not go if she felt that way, that she could stay with the baby and I would go. So the next night I went.

Bull Charges

At the south end of the hillside pasture field was a patch of woods. The lane through which the stock entered the field was at the northwest corner. The stock had made several paths from the lane to the woods.

I called the cows and one or two started to come, but the rest were lying down and paid no attention, and with them was Jimmy. All were out in the woods. I started across the field on the second path from the top of the hill, and when I was nicely out on the path Jimmy started from the woods toward me, bellowing and pawing some. We met about midway of the field, only I was in one path and he in another, which happened to be below me.

My path passed a large stump. As we came to this stump he charged for me. I was pretty supple then and as I was close to that stump I began slamming those sharp roots and stones down on him, just as fast as I could make my hands go. He kept charging and I kept banging him—until finally, with the blood dripping from his head, as I had aimed for his eyes and face, and every missile had hit his head, he stopped a moment and began pawing and bellowing, and trying to rub his head in the dirt he pawed up, being blinded by the blood.

A Moment's Respite

This gave me a moment's respite and I ran straight up the grade, where there was a nearly fence to an oat field, which I scaled, and put for the barn where my husband was caring for his team, preparatory to doing the milking when the cows came, and I was pretty well exhausted.

Had I been on that lower path, and Jimmy on the upper one, no doubt remains in my mind but that he would have killed me. Both husband and I fairly trembled when we thought—just supposing it had been little daughter instead of me who had gone for the cows that night.

That very morning Jimmy had come to the step for his parings, and in every way imaginable had demonstrated his affection for me.

Little daughter went for the cows the next night and for many afterward, as husband put a ring in Jimmy's nose and led him to the slaughter house, saying he was not going to have his family in jeopardy.

It was many years before we raised another bull, and ever after we all were fearful of the consequences of having a bull around, not knowing when their full nature would develop.

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STAR LITTER CARRIER
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STAR WATER BOWLS

Mean more milk and more money. Milk is 87% water. A cow that drinks enough gives 20 to 30% more milk. A Star Bowl gives her the water. Brass valve, can't clog or rust. Snaps shut when cow stops drinking. Sanitary Aluminum Lining—added any time—makes sterilizing practical. Pressure Governor on each Bowl regulates flow of water under any pressure. Installed with any Steel or Wood Stall.

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Complete Barn Outfitters
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Puzzle for attention: J. C. Long, Chief Engineer, Buick Motor Cars, Inc., Flint, Mich. Buick 4-door sedan is our latest model. It has 100 features, 100 advantages, 100 reasons why it is the best car in the world. It is the only car in the world that has 100 features, 100 advantages, 100 reasons why it is the best car in the world. It is the only car in the world that has 100 features, 100 advantages, 100 reasons why it is the best car in the world.

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The cars in the oval all look exactly alike at first glance. They are not all alike. One is different from all the others. There is a real difference. Something is purposely left out of all the other cars but this one. The difference may be in the fenders, bumper, nameplate, radiator or top. The one that is "different" is the Buick 4-door sedan. It is giving away in addition to three other cars in my great friendship advertising campaign. You may be the one who will find it.

AND WIN BUICK SEDAN OR \$1800.00 CASH

4 doors and 20 other features for \$1800.00. 12 prizes and duplicate prizes paid in case of ties. If you can find the "different" auto you may be the one to get it.

Certificate for \$1800.00 to apply on grand prize sent immediately as below if you find the "different" car. Immediate cash action on winning and directions for getting Buick sedan. We will give \$1800.00 to the first person who sends in a correct answer. NO MORE PUZZLES TO SOLVE. No letters or words to make or write or any other thing. This is all. Everyone is entitled to a chance to win. No need of advertisement. No need to buy a car, or any other thing. Send the number of the "different" car to me. I will send the cash or a Buick sedan to you. No money. No need of advertisement. No need to buy a car, or any other thing. Send the number of the "different" car to me. I will send the cash or a Buick sedan to you. No money.

S. M. France, Dept. 200
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REGISTERED BERSHIRE BOARS.—High-class stock. The top litter till now. Superior breeding stock. Write for prices. **W. F. McFARRAN,** Farmville, Pa.

REGISTERED BERSHIRE BOARS.—High-class stock. The top litter till now. Superior breeding stock. Write for prices. **W. F. McFARRAN,** Farmville, Pa.

BERSHIRE PIGS. 8 weeks old, registered, good, thrifty breeding stock to make you money. **W. F. McFARRAN,** Farmville, Pa.

CHESHIRE.—The quality white hog. Superior fresh meat, hams and bacon. **MORNINGSTAR FARM,** Sylvania, Pa.

Chester White Pigs Properly mated, for breeding purposes. **R. L. MUNCE,** Canonsburg, Pa.

CHESTER WHITES.—Pedigreed big type Chams. Most all ages, 13 sows farrowed 151 pigs, perfect for most places. **C. E. Cassel,** Hershey, Pa.

BIG TYPE CHESTER WHITES.—Stock of all ages for sale, from my undefeated show herd. Also high-class pedigree stock pigs. Write for prices. **S. J. Bowman,** Fishersville, Pa.

CHESTER WHITE PIGS.—6 to 7 weeks old, 100 lbs. to 120 lbs. \$5.00 each. **W. L. TAYLOR,** C. Lewis Taylor, Wyalusing, Pa.

Duroc Jerseys.—Service males of the large non-fertile type, fall pigs, all ages. **C. J. McLaughlin,** 208 Kresge Bldg., Lancaster, Pa.

Duroc Boars. March farrow, \$25.00 each, registered. Also gilt bred or open; fall pigs, either sex. **D. H. JOHNSON,** West Liberty, Ohio.

DUROCS.—Extra good, improved, big, strong heavy breed, from my undefeated show herd. **F. W. Havens,** Burgoon, Ohio.

SPOTTED POLAND-CHINA BOARS and gilts, or bred pigs. Three months old pigs with size and quality. **Geo. Andera,** R. 3, Sebring, Ohio.

Big Spotted Poland-Chinas.—Choice spring boars and gilts, pigs all ages. **ROYD HAMMAN,** Shiloh, Ohio.

Reg. Spotted Poland-Chinas.—Spring pigs and hams ready for service. Fall pigs at 8 weeks, \$5.00 each. **A. M. Kennel,** R. 2, Hanes Brook, Pa.

REGISTERED BIG TYPE POLAND-CHINA in all ages, 10 weeks, \$10.00. Express paid. **O. N. LICKELS,** Lombardton, Ohio.

Big Type Poland-China Hogs.—Bred sows and gilt, 10 weeks, full pigs, all related. Pigs available. **John W. Sigrist,** Dundee, Ohio.

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1000 Bred Ewes 700 choice, large, black-faced ewes, yearlings to year-olds, 200 right good, large, Michigan-bred ewes, some ewes. All bred to fertility. Choice Shropshire rams and related right. **A. B. Chapman & Sons,** So. Rockwood, Mich.

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Pure Bred Bourbon Red turkeys, April hatch. Also Buff Orpington cockerels. **G. C. COLEMAN,** Rushville, Pa.

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WHITE WYANDOTTES. Everything from hatchlings to 100 lbs. Large Size, Heavy Lovers, Catalogue. **Sherman Bowden,** Box 195-B, Mansfield, O.

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S. C. W. LEHORN cockerels for breeding, hand-picked by French Legation Dept. Write for prices and description. **J. C. MCCOY, Jr.,** Eminton, Pa.

R. C. RED COCKERELS.—March hatched, Good type and color. Price reasonable. **Mrs. L. W. BAKER,** Route 5, Shelby, Ohio.

BARRED PLYMOUTH ROCKS.—Big, vigorous, well-bred, pure-bred, cockerels. Write for prices. **B. L. EVANS,** Spencer, Ind.

Exhibition Barred Rocks. Male and female. **ART MASON,** Ashland, Ohio.

BUFF ROCKS Exclusively. Cockerels, hens and pullets. Large bone, golden plumage. **W. L. Gladish,** R. 6, Petersburg, Ind.

AYLESBURY and **ROSEN DUCKS.** Embellish. **W. L. Gladish,** R. 6, Petersburg, Ind.

Pure Bronze Turkeys, Prize Winners (white, orange, size, color) hens, \$5.00; \$10.00; toms, \$12.00; \$15.00. Pekin ducks, \$3.00; drakes, \$2.50. **W. L. Gladish,** R. 6, Petersburg, Ind.

MAMMOTH BRONZE TURKEYS.—Purebred, early-hatched, strong-boned, beautiful plumage. Guaranteed to give satisfaction. **Hens, \$7; toms, \$9. Mrs. C. E. McClung,** Williamsburg, W. Va.

Reid's Turkey Farm No Blackhead. **W. L. Gladish,** R. 6, Petersburg, Ind.

TURKEYS, DUCKS, GEESSE.—Leading breeds. Buy your breeders now at special fall prices. Catalogue. **Highland Farm, Ex. F, Sellersville, Pa.**

Special Fall Prices on high-class breeding Turkeys, Geese, Ducks and Guinea, write your name and address for mailing list. **Pioneer Stock Farm, Gettysburg, Pa.**

EARLY HATCHED MAMMOTH DROUSE FEMALAS. 84 each, two being the smallest ever taken. **Plymouth Turkey Farm, Plymouth, N. H.**

MAMMOTH DROUSE TURKEYS.—Bred for vigor, color, size and egg production. Price reasonable. **Beck's Turkey Farm, R. 1, Rockwood, Pa.**

MAMMOTH BRONZE TURKEYS.—Carefully selected from flock of 200 early hatched, well-developed birds. They have been bred for size and vigor. Prices reasonable. Guarantee to please. **MRS. WILSON A. REAPS,** Pylesville, Md.

Some of AMERICA'S BEST MAMMOTH BRONZE TURKEYS.—Original blood. Extra early. Excellent yearlings and young stock bred from prize winners. **MRS. S. OWEN,** Seville, Ohio.

DAIRY CATTLE

AYRESHIRE sired by Supreme Governor. **Reg. Ayres, Jr.,** Champion Trenton Inter-State Fair, whose dam (Trotter) of last year, is the only one of the breed with three E. H. records over 15,000 lbs., and whose sire is out of a cow with a record of 17,144 lbs. **2200 lbs. milk, 27 lbs. butter, 10 lbs. fat in 100 lbs. of milk.** **Write for prices.** **W. L. Gladish,** R. 6, Petersburg, Ind.

Reg'd Guernsey Bulls and Heifers One to nine months. Best blood lines. **C. A. WRIGHT & SON,** Canton, Pa.

FOR GUERNSEY DAIRY HEIFERS.—Tuberculin tested. **W. L. Gladish,** R. 6, Petersburg, Ind.

Reg'd Guernsey Bulls.—1 to 15 months old, well bred. Nine months ready for service. **W. L. Gladish,** R. 6, Petersburg, Ind.

FOR SALE. Foundation Ayreshires of the best blood lines. Any age and both sexes. **W. L. Gladish,** R. 6, Petersburg, Ind.

REG. JERSEY BULLS ready for service. Also younger bulls. **W. L. Gladish,** R. 6, Petersburg, Ind.

Who Should Build Electric Lines?

(Continued from page 8)

much as ours," meaning as much as the same line would have cost if the company had built it. We had to admit that the farmers had not counted much of the time they spent on the line; that they had made no allowance for the help they received from the company outside the \$980.26.

The Company's Side of the Question

But we countered with this question: "Since you now have these farmers as regular buyers of current why do you care how much their line cost?" The replies of the company men brought out several points worthy of attention. They might be summarized in a monolog something like this:

"Now that those farmers have spent their time and money building their line, what do they have? Nothing. For they have turned over the completed line to us and the title now rests with the company. You say that by building the line themselves they cut their minimum charge to \$2.25 a month. Yes, but what good does that do them? As soon as they can get together enough money to buy the electrical equipment they want, their monthly bill will be far above the minimum, so why should they spend several hundred dollars apiece to get a low minimum?"

"As it is now, they have spent their cash on the line and don't have the money to buy the electrical equipment they need. If they had let us build it for them they could have had their appliances all ready to use as soon as the current was turned on. Now both of us have lost, for they don't have the use of the equipment and we don't

have the business of supplying current to operate the equipment."

The electric company men at Meadville did not say all this, but they said enough to indicate that this was on their minds. They told us many other things, too, about the problems of rural electrification. There are many farm lines being planned in Crawford county, but something is interfering with the completion of most of them.

It may be some one trying to make an exorbitant charge for right-of-way across his fields. It may be some group of people who are worried about the high minimum charge, even though all of them plan to use enough current to bring their monthly bills above the minimum. Or it may be that the minimum really is too high, due to the fact that not enough farmers will sign up along the proposed line. These and many other difficulties are withholding electric service from many who really need it and want it.

Every Line a Separate Problem

The reader may feel that we have presented in this article the two opposite sides of a question without arriving at any definite and helpful conclusion. On one side we see the farmers, pleased with the results of their effort. On the other is the power company, somewhat skeptical and reluctant to encourage further line extensions on the same plan.

But through it all two things stand out: One is the very definite fact that these Crawford county farmers have obtained electric service as a result of their initiative and fine cooperative

Byham-Beuchat-Smith Electric Line Extension

Completed September 10, 1928. Current turned on September 11, 1928.

Contributions of the nine cooperators in cash, labor, material, including \$200 in cash and two days labor from the three nonactive cooperators.

Cash	\$880.63
70 poles at \$3.25 each (Except those bought from cash fund)	227.50
90 holes at 75c each	67.50
80 days labor at 40c per hour or \$4.00 per day.	320.00
15 anchor holes at \$1.50 each	22.50
Tractor 2 1/2 days at \$12.00	30.00
Truck	15.00
Total	\$1604.11

Actual cash cost to cooperators only, poles and holes being counted as cash (3 miles of line).

24x5 lbs. No. 6 copper wire at 17 1/2c discount out	\$423.08
Line material including 118 arm equipments	113.97
236 No. 1111 insulators	72.68
118 six pin arms	118.00
Freight	6.23
106 poles at \$3.25 delivered	344.50
106 holes at 75c	79.50
15 anchor holes at \$1.50	22.50
Right of way	30.00
Use of truck	15.00
Hired help	8.41
Miscellaneous small accounts	12.14
Total	\$1214.87

Actual cost of line to cooperators in cash, labor, tractor, truck.

Cash as above	\$1214.87
Labor	320.00
Tractor and truck	45.00
Total	\$1584.87

Cooperators' contributions (First table)

Total amount expended as above	\$1584.87
Balance in treasury (R. E. Smith)	24

Total actual cost of line including amount expended by electric company:

Total cost to cooperators in cash, labor, material, etc.	\$1,003.87
Amount invested by electric company	980.26
Total cost	\$2,584.13

Actual cash cost per mile to cooperators

Actual cash and labor cost to cooperators per mile	\$404.06
Actual cash and labor cost to cooperators per mile	534.62
Total actual cost over all per mile, including investment of \$980.26 by electric company	\$61.38

TRAPPERS

—GET MOST MONEY—**SKUNK, MUSKRAT, COON, MINK, OPOSSUM, FOX, WEASEL, WOLF** and all other furs in big demand. We pay express and parcel post charges. **Be sure of highest prices; write for price list now.**

BENJAMIN DORMAN
Famous Among Trappers for 20 Years
147 West 24th St. New York

SKUNKS
and all other furs wanted. In business thirty-two years. Write for price list.

CHARLES A. FAINE
147 Bridge St. Montgomery, N. Y.

FURS FURS FURS
Ship us your Raw Furs at once and get highest prices. We have are in great demand.

INDEPENDENT FUR CO.
Box 21, Drums, Pa.

Classified Department

WANTS—For Sale or Exchange

12c a Word
Minimum 10 words; 10c per word per insertion if four consecutive insertions are used.

Address all orders to 7301 Penn Ave., Pittsburgh, Pa.

HELP
GARDEN NURSERIES, Rochester, N. Y., established 1880, wants reliable man to take over this winter in his vicinity for his "first-class" shrubbery, hedging, bushes, trees, etc. Two-year replacement guarantee. Free estimate. No investment or experience necessary. Part or full time. Pay weekly. Write today.

BAGS
1488.—We buy your empty bags at good prices. We also manufacture and sell new or second-hand burlap bags. Write us for prices today. **W. L. Gladish,** R. 6, Petersburg, Ind.

WE PAY HIGHEST PRICES for empty bags. Write for price list. **Pittsburgh Bag & Burlap Co.,** 90 Progress St., N. S., Pittsburgh, Pa.

RAW FURS
FURS—HIDES will bring the best prices when shipped here. No quantity is too small or large. Write for prices, market information, terms. **E. H. Lumsden,** successor to Keystone Hides Co., Lancaster, Pa.

WANTED—Raw Furs. **Ginseng, Minks, Mole, etc.** Especially broad stripe Skunk, **R. E. Smith,** Fur Co., New Brunswick, N. J.

DISNEY SEED for sale, \$1.50 per M. Raw 100 seed, especially Jacobson. Better than New York prices. Let's get acquainted. **R. J. Johnson,** Ocean, N. Y.

TOBACCO
GUARANTEED HOMOGENIZED TOBACCO.—Choose 2, 5 pounds, \$1.25; 10, \$2. Smoking, 10, \$1.50. **W. L. Gladish,** R. 6, Petersburg, Ind.

GUARANTEED chewing or smoking tobacco, 5 lbs. \$1.25; 10, \$2.50; 20, \$4.50. Pipe tobacco, 10 lbs. \$1.25. **W. L. Gladish,** R. 6, Petersburg, Ind.

ALFALFA
RAY—All kinds, alfalfa, clover, timothy and other hay. **Harry D. Gates,** Columbus, Mo.

ALFALFA HAY.—Car lots for sale. **Chas. B. King,** Box 22, Mechanicsburg, Ohio.

spirit. While others are merely thinking about it they actually have electricity in their houses and barns.

The other outstanding fact is equally definite: The electric company will not consider it profitable business to maintain that line and give satisfactory service unless at least a part of the farmers use more current than is included in their minimum charge.

Each Line a Problem

Every line extension is a separate problem. Local conditions will determine whether the line should be built entirely by the company, entirely by the farmers, or partly by each. Hard and fast rules are dangerous in dealing with problems as complex as this, but the facts we uncovered in Crawford county seem to justify these generalizations:

In sections where farmers plan to use numerous electrical appliances they should not put much actual cash into the line merely to obtain a low minimum, for that is throwing the money away. They should let the company build the line and they should spend their ready cash on appliances, contributing only enough labor and poles to keep the minimum charge slightly below their probable monthly bills.

Veterinary

By Dr. H. H. HAVNER

Udder Trouble

M. R.—Am writing you in regard to my cow which freshened a week ago. She has a lump in the back of her udder. Sometimes it is as big as a walnut and other times is only as big as an egg. This is the same cow I wrote to you about being hard to get with calf. She had milk fever in 1923. Do you believe this could be caused from her having milk fever? Would it be advisable to keep her calf for a cow?

This had quarter may be the result of infection with the instruments at the time of the milk fever attack. The trouble is not contagious but is very apt to leave a bad quarter permanently. Am rather fearful of the final outcome. The calf can be raised and there is no reason that the production of the offspring should be interfered with.

Pigs Cough

W. D. H.—My pigs have a cough. Some of them cough a lot. Does not seem to hurt them. Some older hogs have the same cough.

This cough is due to the common round worm of pigs which at this particular stage is in embryo form and is in the lungs. The embryos hatch from eggs taken in with contaminated food from muddy or wet feeding places. The next step is the working of the embryo through circulatory apparatus to lungs.

The pigs require a balanced ration above all. Use ten per cent tankage or fishmeal as a part of the grain food. Give also a reliable worm capsule which you can secure through your veterinarian.

Herb, the Handy Man

1. PREPARE PUMPKIN
FOR PIE 1. cut pumpkin into small squares and pare. 2. steam or boil, drain well and mash.

2. COOK
over a low fire until pumpkin reaches a creamy consistency. It is now ready to can or use.

3. PACK IT VERY HOT.
Process it 10 mins in water bath or 5 mins in 1 lb. pressure cooker.

4. FOR EVERY 1/2 cup of pumpkin
ADD 1/2 cup milk; 1/2 cup brown sugar; 1/2 cup water; 2 eggs; 1 tsp. ginger; 1 tsp. cinnamon; 1 tsp. salt.

5. DON'T WORRY DOG.
THEY'VE GOT TO EAT THE PUMPKIN.

6. NON I WAIN YOU DOBBER.
YOU MUST EAT THE PUMPKIN.

7. OH YES, I'LL US WONDERED HOW PIES GROWN.
CUT IT OPEN AN' SHOW EM TO ME.

8. BUT I THOUGHT YOU WAS GOING TO CAN THAT PUMPKIN!

9. SO DID I—UNTIL I SAW YOU KISSIN' THE HIRE GIRL.
THEN I DECIDED TO USE IT.

10. FER PITY THAKES.

11. NO SIR, BUT I GOT SOME DANDY PUMPKINS.

12. SLAP SLAP.

Make Your Own GOOD MEDICATED SALT

TONIC
CONDITIONER
APPETIZER



FOR
RUN DOWN
LIVE STOCK

(Formerly known as WORMIX)



Home-Made Medicine for all Farm Stock Saves Half the Usual Cost



SIDNEY R. FEIL

Graduate National Institute of
Pharmacy; Graduate Cleveland
College of Pharmacy
Formerly ass't to Dr. Nathan
Rosenfield while chief chemist
of the Ivo-San Food and Dairy
Company, The Ivo-San Laboratory.

I will send you and every other reader of this paper, who will mail the coupon below—a 3-lb. package of my concentrated, medicated salt, WYMIX, the CONDITIONER, TONIC and APPETIZER, so that you can test it at my expense. It is the best, cheapest and most satisfactory tonic and conditioner you can get. This 3-lb. package of WYMIX, which you mix with 17 lbs. of salt or ashes, will feed 40 head of hogs or sheep, or 10 head of horses or cattle for about 30 days. I'll send it to you postpaid.

I want to prove to you right on your own stock, that WYMIX will clean up your animals internally, tone their systems, sharpen their appetites, get rid of the usual feed-lot troubles and improve their condition so that they will do much better—resist disease better—grow faster and make greater profits for you.

I want to prove to you also—and this is very important—that with WYMIX, this home-made remedy costs you only HALF the usual cost, and saves you all the bother, trouble and work of catching and dosing each animal. With WYMIX your hogs, sheep, goats, horses or cattle DOCTOR THEMSELVES.

Why have runty, scraggly, rough-looking, poor-growing, sickly, money-losing pigs and other stock? Without risking a cent, you can prove to your own satisfaction that this wonderful home-made remedy will put them in prime condition, stop many feed-lot troubles and possible losses, and do it at a saving of one-half.

Send No Money - - 30 Days Trial

I want just this one chance to prove it to you, on your own stock. I am proving it to hundreds of farmers every day. All I ask is the privilege of sending you enough of my concentrated, mineralized, medicated salt—WYMIX—so that you can make your own Conditioner, Tonic, Appetizer and Preventive for a 30-day test. I want you to feed it as directed, and if you aren't fully convinced that WYMIX does all I claim, just write and tell me, but don't pay for it. But if it DOES give your animals keener appetites, —make them thrive better—improve their condition and show you clearly that IT PAYS to feed WYMIX, then send me only \$1. You are to be the judge.

WYMIX is a fine tonic and conditioner for all farm animals. Put where your stock can get it all the time—they will doctor themselves at a very low cost and without bother to you. WYMIX will keep your animals thrifty, keep them growing and on their feed every day. You'll be surprised how much better they'll thrive; they'll look better—do better—grow faster and make you bigger profits.

Don't pay drug prices for salt or other fillers. Use WYMIX—add your own salt—make your own conditioner

and tonic—save half the usual cost—have a better remedy.

No Drenching—No Dosing— Stock Doctor Themselves

Just put WYMIX where your animals can get it any time they want it and so they will get some of it each day, just as they need it. No bothersome, troublesome catching, handling, dosing or drenching of each animal. WYMIX saves time, trouble, worry and stock. WYMIX is a tonic, appetizer, conditioner, digestive and preventive. It will help your stock do better, keep healthier and more thrifty.

Before you decide on the remedy you'll feed, see that it is backed by actual proof—not empty claims. I give such proof, besides you are further protected by

My Personal Money-Back GUARANTEE

Give WYMIX (formerly called "WORMIX") a trial. You take no risk—you send no money—you don't have to pay me a cent if it does not prove of benefit to your stock and convince you that it PAYS to feed it. Offered on such a NO-RISK basis as this, you are standing in your own light if you don't fill out and mail the coupon. **DO IT NOW.**

While this is an offer of a 3-lb. package of WYMIX on 30 days' trial, still if you wish to order one or more of the larger packages, same will be sent, charges prepaid, upon receipt of price listed below, with the understanding that your money will be refunded if WYMIX does not do all I claim. Your personal check will do.

PREPAID PRICES	
One 15-lb. pkg. makes 100 lbs.	\$ 3.50
Four 15-lb. pkgs. make 400 lbs.	13.00
One 90-lb. bag makes 600 lbs.	18.00
Three 90-lb. bags make 1800 lbs.	50.00
(West of Denver, 6c a lb. more)	

SIDNEY R. FEIL, Prop.

The Ivo-San Laboratory

4612 St. Clair Ave., Dept. 35, Cleveland, Ohio



(Formerly known as WORMIX)

Stops Losses—Conditions Lambs
"After having lost 25% of my lambs, I started to feed WYMIX. It stopped further losses and worked wonders in conditioning and fattening those which survived." H. S. Stehman, Lancaster, Pa.

No More Sheep Lost
"I lost a large number of sheep until I began to feed WYMIX. It proved to be a great medicine, as I haven't lost a sheep since." Geo. M. Ferris, Sandy Lake, Pa.

Feeding WYMIX Insures Gains
"I never used a finer hog remedy than WYMIX. It has proved a real tonic for the herd. Last fall one of my hogs didn't do any good—weighed only 150 lbs. a week before Christmas—started it on WYMIX and on Feb. let it dressed 228 lbs." Henry J. Yahn, Crooksville, Ohio

Pigs Grow Fast
"I had a bunch of fall pigs which were so badly out of condition I couldn't even offer them for sale; in fact I couldn't have given them away. Am feeding WYMIX—and am amazed at their improvement—thriving and growing fast right through the cold weather." R. C. Eichelberger, Marysville, Pa.

Sheep Improve 100 Per Cent
"Two years ago I lost 3 lambs and the rest of the flock were not in good condition. Since then I have been feeding WYMIX; as a result my sheep have kept in fine condition and my lambs were extra, without a single loss. Mr. C.—of State College who had a sheep demonstration here last June, said my sheep's condition had improved 100 per cent." C. V. Baker, LeRayville, Penn'a

Conditions Calves and Sheep
"I used WYMIX on my sheep and calves, and have never seen its equal for toning and conditioning stock; my sheep and calves are improving and putting on weight fast." L. W. Ramsey, Belington, W. Va.

No Use Looking Further
"When you have once found WYMIX, there is no use looking further for a conditioner, appetizer and stock tonic." James C. Birtcher, Pisgah, W. Va.

WORMS IN POULTRY

Don't worm your chickens with WYMIX. Poultry should not be given any preparation containing salt. Use my guaranteed

POULTRY Wormoid

Expels the dangerous large round worms of the small intestines of poultry. It contains no salt. Sold on a money-back guarantee. Sent prepaid upon receipt of price—1 lb. can for 100 fowls, \$1; 6 cans for \$5.

PENNSYLVANIA FARMER

Consolidated with

PENNSYLVANIA STOCKMAN and FARMER

December 8, 1928

Established 1877



Devonshire Coast, Bermuda

Pittsburgh

Harrisburg

Philadelphia

There are plenty of "indoor" jobs for your blow- torch



BLOW-TORCHES

Thawing frozen pipes
Providing heat for camp stove
Heating glue pot
Cleaning engine
Repairing automobile radiators
Soldering steel cable with solder
Melting metals
Treating old beehives (inside)
Burning brush while clearing land
Repairing gasoline stove cans
Loosening rusty bolts and nuts
Soldering electric wiring
Loosening old spouting
Killing tent caterpillars
Starting back-fires during forest fires
Starting engines in cold weather
Heating for bending piping
Loosening soldered articles
Bending metal
Printing signs on cottages
Use for light at night when soldering
Cleaning gooseneck in sinks
Starting hard coal in furnaces
Singeing dressed poultry
Heating wax for grafting trees
Melting old inner tube to make gum to put on slipping belts
Wind finishing
Lead and wax filtering
Shaping steel plates (small)
Taking off press-fit bearing easily. For this heat all around bearings
Removing kingbolts
Heating metal for boring wood or a solder metal
Heating flux solder in radio work
Loosening rusted-in wood or machine screws to facilitate removal
For babbiting and for shrinking collars or other parts on small shelling
Charring wood



CLAYTON & LAMBERT MFG. CO.

DETROIT, MICHIGAN

Now that there's no field work you have a chance to catch up on some of those jobs you've had to put off while crops were taking most of your time and energy.

Perhaps you've been wanting to paint a couple of rooms in the house. There's a job where your blow-torch can help you a lot. Turn the flame on the paint until it softens, and follow right behind the flame with a putty knife. That will clear off the old paint in a hurry, and a quick smoothing over with sandpaper will give you a fine painting surface.

Maybe some of your pipes need replacing. If you find joints hard to loosen, turn your blow-torch on them—that will expand the metal and free things up. You can do the same thing on any rusted nuts and bolts you may want to replace. Use your blow-torch to help bend pipes too. Bending pipes cold is likely to strain or crack them, thus spoiling them completely or shortening their period of usefulness.

Perhaps you hadn't thought of using a blow-torch instead of kindling—but there's a mighty handy use for it; for starting the fire in the kitchen range or down in the furnace. For that matter, there's no reason why you should not use it to start wood fires in the fireplace, either.

Any soldering and wire splicing you are going to do—on your radio or your lighting circuit—that all calls for a good blow-torch of course.

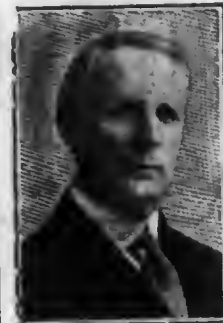
One farmer tells us he uses his blow-torch to clean out the gooseneck in the kitchen sink, which just gives some idea of the multitude of ways a blow-torch can help you take care of tough jobs.

It's a cinch you need a good blow-torch on your farm—and it'll be working for you every month in the year. At least Clayton & Lambert's will. For they're built for steady, hard work; they have got heavy brass tanks, valves with double springs, a lead washer in the filler plug, and many patented features exclusive to them that give them longer life and greater usefulness.

You can't buy a better blow-torch than a Clayton & Lambert. And you can't get a better "buy" from the standpoint of value. Ask your local hardware dealer or general store to let you look them over. You can tell them easily enough—they've got red handles. If you don't find them in your locality, drop us a line and we'll see to it you're taken care of promptly.

Farm Facts and Fancies

By ALVA AGEE



I KNOW a soil scientist who would be surprised if his name were printed in this connection. He says he knows little, or nothing, about chemistry and bacteriology and physics. He is nearly right in respect to the first two, and while he knows considerable about the last he doesn't realize that his facts come under that head. He is a true scientist because he has learned how to make poor land productive, and to do so while making a living from it. What more does he need to know? The soil lacked "life," got too wet when it rained and too dry when it didn't, weeds liked it better than grass plants did, and cultivated crops made poor yields.

This scientist knew that nature uses vegetable matter in the making of good soils, that clover is one of the best sources of organic matter, and that clover likes lime. It all was simple enough to him. Lack of money made it necessary to use lime sparingly at first, and he reasoned that the clover plant needed its lime most when it was young, and so the lime was harrowed into the surface of the seed bed for wheat.

He made the first crop of clover into hay, and the manure from it was used for top-dressing grass. The second crop he gave to the soil. He tiled wet spots in fields as he was able. The land grew better. He heard that bacteria was working for him, and let it go at that. Scientist? Yes, a successful one.

Road Costs

Roads with a hard surface cost from sixty thousand dollars a mile, and above, down to a thousand dollars, or even less where the gravel or crushed rock is at hand and costs little. Conditions vary so widely that we do not get far comparing figures, in a way, but let us suppose that gravel or rock is available to surface a road for a small sum after the grading. No one sees waste in that. But count the interest and constant repair and apply that sum on a mile that never could have a hard surface given it and you are able to keep the road in pretty good condition. Why should that be thought any more wasteful than the same expenditure on crushed rock?

Where there is no stone for surfacing, the drag at much less cost per year makes the road passable. The interest on a mile of very costly concrete road would keep many miles dragged, and often it would be better to have a few less miles of concrete in the township and, with the saving, keep all its country roads in good condition.

The Marginal Farm and Farmer.

There is a word the economists have taught us to use, and it may be a good-enough word, but I do not like it. They see land, and people on it, that classify as "marginal." I reckon that means that they are on the edge, as efficiency rates edges. We are told that the production of land that should not be farmed, and of men who should not be farmers, is sufficient in the aggregate to overload the market and depress prices. Various cures are suggested for this sort of thing. No one in this so-called class cares to offer any defense, and may not appreciate an effort along that line, but for the sake of keeping my thinking right I turn to the facts now and then.

Who has a better right to a small piece of poor land than a man who does not care to struggle to make money, and sees the foolishness of making life a grind to accumulate

money to spend according to rules laid down by others? He is entirely willing to live simply and to have time to spend in the way he prefers. It is his life he is living, and his time he is spending, as he sees it, and strain to make a show looks as bad to him as it really is. He has as good a right to a place in the world as the man who always is kicking up a dust chasing after dollars. So-called marginal land meets his need because he can afford to own it, and when organizations "survey" him and make reports I wish some marginal people would get together and survey Wall Street. Their report would be interesting. The trouble is that we can easily overvalue our own viewpoint.

When Doctors Disagree

If one were seriously ill he certainly would not summon an allopath, a homeopath, an osteopath and an orange-juice specialist. Any one of the four might help nature to make a cure, but the four would block each other. I am afraid that the short session of the old Congress will not give the farmer any legislation of value. The hang-over of old ideas and contentions can easily prevent the doing of anything.

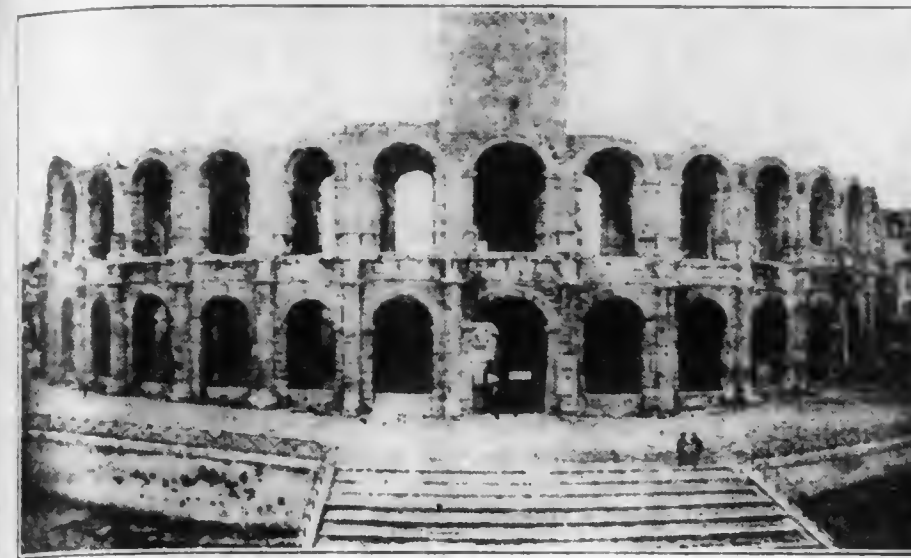
We expect action from a new Congress and President, but it is an unfortunate situation if the sort of legislation that is pretty sure to come later cannot be agreed on right now, so that whatever benefit could come from it would come in 1929. An extra session can hardly bring that result. The condition of the whole world would have to be canvassed in speeches, Boulder Dam and other controversial matters would be projected into the proceedings, and wheat harvest would be passed before the Congress would recall exactly what was the purpose of the extra session. Let's have what we are to have: the arguments were really finished two years ago.

Latin Americans

It was a stroke of genius in the President-elect to make a good-will visit to the nations south of us. People with whom I talk are counting on the better understanding of ourselves that will follow—our desire for peace and lack of desire for any new territory or any aggression. That is good, but good-will is based on mutual appreciation, and difference in blood and habit of thought should not be permitted to make us feel superior to our neighbors. We may be when measured by our standards, and just the opposite when measured by their standards. We have no warrant to revise their standards. They will see that Mr. Hoover has a fine regard for them. If we follow him in his thinking, there will be a substantial basis for good will and understanding. We need to be in that sort of relationship. It has not occurred to any one to make such a visit to Canada because that country knows we do not feel superior to it, and we can have all America our friend on the same basis.

LEADING COUNTY SOIL-BUILDING PROGRAMS NAMED

THE leading county programs of soil improvement for twenty-six northern and eastern states were selected by a committee of five prominent crop and soil authorities and extension leaders acting as judges of this contest put on each year for the purpose of encouraging the development of broad and sound programs of soil building and to give recognition to counties in which soil work is being done. The winners in the 1928 contest are: Thos. H. Blow of Washington county, Va.; Chas. D. Lewis of Hartford county, Conn.; H. G. Sturm of Harrison county, W. Va.; W. S. Barnhart of Muskingum county, O.; John R. Gilkey of Richland county, S. C.; L. E. Thorne of Jasper county, Ind.; Bob Amundson of Outagamie county, Wis.; and O. E. Allen of Cass county, Minn.



Grand Stairway and Exterior of Arena at Arles

An American Editor Abroad

Modern "Sport" in Ancient Arenas

By E. S. BAYARD

THE grape is one of the principal crops of France.

Vineyards came into view not far south of Paris, but they are small and insignificant as compared with those of the South. All along the valley of the Rhone, extending far up the mountain sides, are vineyards. And as we leave the Alps for the southern foothills and later the alluvial plains vines cover the land as far as one can see as he drives along the shaded highway.

We went through more and more Alpine scenery to Gap, the descent into which is a steep and crooked one. The names of this part of France are known as Gavottes, and their dance gave to music the term Gavotte.

Beyond the quaint old city and fortress of Sisteron we turned off the main highway, which branches into a summer and a winter route across the Alps to Nice, and struck out across the foothills on a winding dirt road for Forcalquier. This is an ancient town, once the capital of Provence, now not a place of much importance. Here we found accommodations difficult but we finally secured one room in the old hotel, a stone structure of the 12th century, and another in a still older house that was formerly a part of the chateau or castle.

Moderate Hotel Rates

A fete was the reason for the lack of accommodations. But the beds were good, the dinner was excellent, and the breakfast was as usual. Here was the lowest hotel rate we encountered in France—25 francs for one room and 20 for the other, though each had two beds. The hotels at which we stopped on this tour were good enough for anybody—the rooms clean, well furnished and large. The usual price is 60 to 70 francs for a double room with running water, or \$2.40/\$3 for two

persons which is cheaper than similar accommodations in our own country.

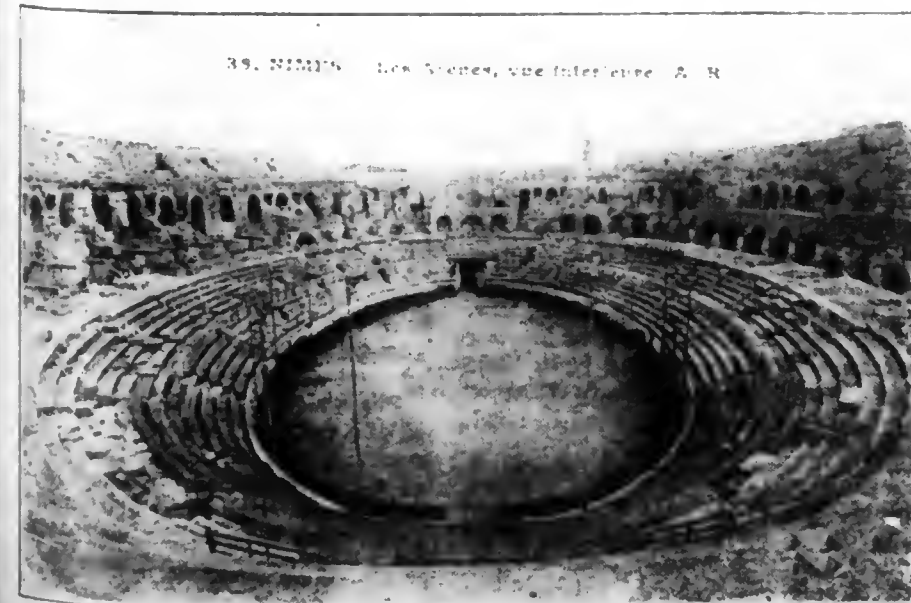
Most of these hotels make a charge of 10 per cent for service, which means that no tips are to be given, and which is reasonable considering the moderate total charge. In some cities four per cent is added for a municipal tax. The cities levy this tax for education or some other stated purpose, and in no place we visited was it more or less than four per cent. The French hotel bill is carefully itemized and any error is promptly corrected. We found a couple of errors but had not the slightest trouble over them.

Woman Managers

Many of the French hotels are managed by women, and the same is true in England, Scotland and Ireland. This means that the visible management is in the hands of women, for the ownership or the invisible management is usually masculine though not always. At Forcalquier a man was in charge, but he allowed his female employees to carry in and out our luggage and they seemed to expect to do it. The women of Europe do not leave all of the heavy work to the men, or the men leave much of it to the women.

On our way to Arles we passed through an interesting region, much given to grapes and flowers, but we must not attempt to describe everything. Leaving the rich valley we followed a winding road through the hills until we came to the quarries which supplied the stone for the Roman structures of Southern France as for the builders of today. The hills are full of caverns from which the stone has been taken out, and we could hear but could not see the saws going in one cavern far below the surface. In some of

(Continued on page 20)



An Interior View of the Arena at Nimes

Did we put too low a value on your feet?



Back in October we talked about your \$11,000 feet—we got that figure by averaging the value set by standard accident insurance policies.

Now a lawyer writes to say that a client has just been awarded \$30,000 for a permanently injured ankle. Well, perhaps we were too low. We realize that your feet are priceless. That is why we go to such lengths to give you the best possible footwear.

We say confidently that for long months of solid comfort the new "U. S." Blue Ribbon boots and overshoes are unrivaled. We know the quality of rubber and workmanship that goes into Blue Ribbon footwear. We offer it to you only after it has passed 12 tests to prove it will outwear other footwear under similar conditions of service.

United States Rubber Company



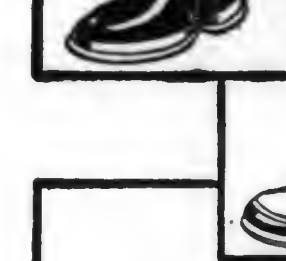
"U. S." Blue Ribbon Boots

Red or black uppers. Gray soles. Three lengths—low, medium, high. Any judge of footwear can recognize the superior quality the instant he sees and handles these boots. 4 to 11 layers of reinforcements wherever wear is heaviest.



"U. S." Blue Ribbon Walrus

(all-rubber arctic) Red upper. Gray sole. Four or five buckles. The most useful shoe on the farm. Slips right over your leather shoes. Kicks off in a jiffy. Washes clean like a boot. Built to give you longer wear.



"U. S." Galosh

You'll be glad to wear this sturdy, good-looking arctic anywhere. It has a long-wearing gray or red sole and the finest quality cashmere lining. Fleece lining for extra warmth. 4- and 5-buckle heights.



Make this test yourself

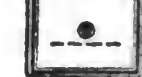
Twist a "U. S." Blue Ribbon boot. Then watch it snap back like a rubber band. A strip cut from the upper will stretch more than five times its own length!

Will your boots stand this?

Think of the punishment your boots must take—scuffing over concrete feeding floors, scraping through ice and mud! In the Blue Ribbon laboratories a machine presses rubber against swiftly revolving emery. The rubber in some footwear chafes away at the rate of 4/5" per hour. The standard for "U. S." Blue Ribbon Rubber is 1/5" per hour.

FREE BOOK! The Care of Farmers' Feet

This free book, by Dr. Joseph Lelyveld, Executive Director of National Association for Foot Health, tells about bunions, corns, ingrown nails, chilblains, callouses, fallen arches, etc. Address: United States Rubber Company, Room 112, 1790 Broadway, New York.



"U. S." Gaytees

Gaytees is the trademark name of the new tailored overshoes made only by the United States Rubber Company. New styles, new patterns, new fabrics.

"U.S." BLUE RIBBON heavy footwear

THE county agents in seven Pennsylvania counties this winter are putting on an intensive campaign to get farmers owning woodlots to cut out the undesirable and crowding trees in them.



THE eight-year-old campaign to rid New Jersey of the varroa mite is showing signs of success. It is apparently going to be the first successful effort to exterminate a major imported pest from any large infested area in the United States. The eighth year's work of the New Jersey Department of Agriculture in spraying, banding and inspecting fruit and shade trees resulted in only 36,000 egg masses in five colonies being found as compared with 3,003,039 in 855 colonies in 1920. G. W. H.

Why Trees Grow Slowly

By Wm. H. WEHNER

WHY did our forefathers have to wait from 15 to 20 years before they could pick an apple after planting the tree? Five reasons for this delay may be stated as follows:

They removed all the lower limbs of the tree, raising its head from 6 to 8 feet from the ground. Can you imagine such a tree the first season—when the sun had reached its zenith, when the thermometer stood at 90 to 100 degrees in the shade, with its stem exposed to the burning rays of the sun? Can you imagine this tree a few years later when finally it succeeded in developing a top?

And along comes a gale blowing 50 to 60 miles an hour, waving its top back and forth almost to the breaking point. Can you imagine the strain exerted on its slender roots causing many of them to break? Did you ever stop to think that these little roots are there to gather up mineral and moisture to promote the growth of the tree?

Did you ever notice how rapidly the grass and weeds spring up around such a tree where such a condition exists? Then along comes a dry spell and very quickly the roots of both the grass and weeds consume what moisture is left. The ground begins to bake and crack and these roots of our tree become exposed.

Then along comes a little shower, but not enough to supply both the tree and the grass. The grass has the advantage because its roots are nearer the surface. Is it any wonder that it took from 15 to 20 years to produce one apple? Why it is a wonder that the little tree survived at all.

Cooperation with Nature

Now let us examine these points and see what happens when we learn to cooperate with the tree and with nature.

When we transplant the tree from the nursery to its permanent place we reduce its top to within two feet of the ground. This operation increases the food supply left in the roots. The tree quickly responds and develops a lushy top, and when the sun has reached its zenith and the thermometer stands at 90 to 100 degrees in the shade it is able to protect its stem from the burning rays, its stem grows strong and sturdy.

Along comes the storm, our little tree is not top-heavy. The storm has little or no effect on this tree.

The shade produced by the top of our little tree prevents the germination of the grass and weeds.

Along comes a dry spell. The ground does not bake and crack. The roots are not exposed.

Along comes a little rain. There are no weeds nor grass around our little tree. It drinks in the rain and smiles back at you in its exuberant growth. And in a few short years it repays you a hundred fold for your cooperation. Does it pay?

Then let us learn to cooperate.

Cherries and Robins

THE damage to cherries by robins seems serious to those who have only one or two small trees. The man with several large trees does not notice it so much. The big grower with an acre or more seldom says a word about the damage from birds. A few robins feeding over an acre of cherries is not causing a noticeable amount of damage, but all the robins from the neighborhood feeding in one small cherry tree is a very different proposition. It is no wonder the backyard gardener gets out his shotgun.

Robins are friendly birds and seem to prefer nesting near humans. Possibly they are less in danger from snakes, red squirrels, hawks, owls, blue-

jays, weasels, etc., close to man than out in the woods. At any rate there are many more robins' nests to be seen in a village than in the open country. For this reason the town-lot cherry grower has more trouble from birds in his one little tree than his brother on the farm with his row of trees.

Many Things Tried

The public without a doubt owes the robin more than the value of the fruit he eats. What would spring be without a robin? What fun the whole family would miss if they could not watch him on the lawn tugging at a worm! Besides giving these free exhibitions the birds destroy many insects that would otherwise prevent more fruit from ripening each year than they ever eat. However, it is too much to expect a man who has been waiting and watching for his few quarts of cherries to feel that he is under any obligations to give up his ripe fruit to pay the bill the public owes.

Various methods have been tried to keep the birds from eating the fruit. Scarecrows, stuffed owls, swinging bits of bright tin or glass are often used and may help some. The latest idea to appear in print is to place the loud speaker of the radio in the cherry tree. Probably a buzzer or an old auto horn with the proper electrical connections would be more practical and just as effective.

A Remedy

The best method is to give the birds something to eat that they like better than cherries. The writer learned this by observation when a boy, his mother, who liked to try all the new plants in the seed catalogue, bought a packet of "Russian mulberry" seeds. They grew and came into bearing in six or eight years. There was quite a variety

in the packet. Some bore black fruits and some white and some none at all. Most of them ripened all their fruit at one time. Two of them happened to be everbearers. One of these was planted near the Yellow Spanish cherry tree. The berries were about half an inch long, black and very soft when ripe. As fast as they fell others grew to take their place. This tree had ripe berries on it from late June until October.

The cherries began to turn yellow and red about June 15th and the robins began picking the ripest from the top of the tree. A few days later the mulberries began to turn black. From that time on the birds hardly looked at the cherries. All summer long mother birds fed their families from the mulberry tree. The ducks and the hens greedily ate the dead-ripe berries that fell to the ground; but the family preferred to eat the cherries and other fruits.

The everbearing mulberry is now listed with other nursery stock. It is a rapid grower. The wood makes good fence posts not unlike locust. A few planted in waste ground will protect the cherries, feed the birds and hens while growing into fine trees.

E. W. CLEVES.

Somerset county, Pa.

Apple Storage Holdings

COLD storage holdings of apples Nov. 1 were somewhat above the five-year average with barrelled apples slightly below the average and boxes and baskets considerably above the average.

Barrelled apples were reported at 2,871,000 barrels, compared with 1,864,000 barrels on Nov. 1, 1927, and a five-year average of 3,240,000 barrels.

Boxed apples were given at 12,421,000 boxes, compared with 9,074,000 boxes in 1927 and a five-year average of 8,254,000 boxes.

Basket apples were reported at 4,918,000 baskets, compared with 3,309,000 baskets in 1927 and a five-year average of 1,983,000 baskets.

Tri-State Potato Clubs



Ralph Kelly's Prize-Winning Peck

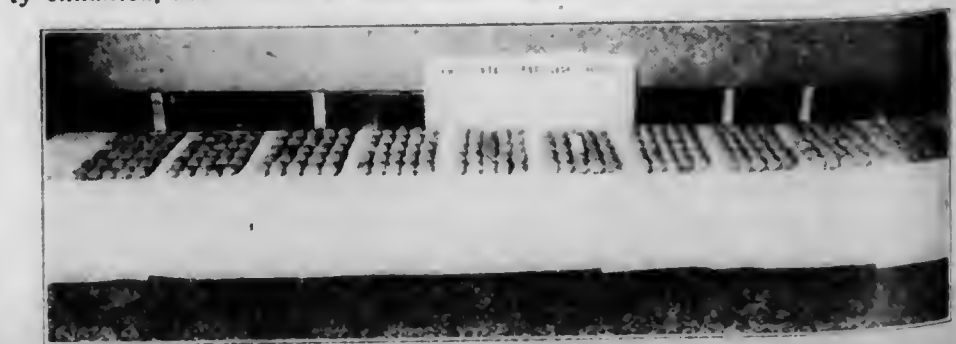
ty and sixteen from Somerset county, making a total of twenty-nine individual peck exhibits. Ralph Kelly of Terra Alta, W. Va., exhibited the prize-winning peck.

The exhibits were judged by H. C. McWilliams, county agent for Cambria county, Pa., and the prizes, which were awarded by the Baltimore and Ohio, went to the following:

First, Ralph Kelly, Terra Alta, W. Va.; second, Asa Groves, Albright, W. Va.; third, Lee Hoppert, Fairhope, Pa.; fourth, Glenn Moser, Salisbury, Pa.; fifth, Damon Bishop, Albright, W. Va.; sixth, Walter Guegney, Boynton, Pa.; seventh, Harland Ridder, Oakland, Md.; eighth, Robert Kelly, Terra Alta, W. Va.; ninth, Merian Miller, Berlin, Pa.; tenth, Meredith Emsie, Berlin, Pa.

The prize-winning potatoes will be exhibited this coming winter at the Pennsylvania, Maryland and West Virginia State Farm Shows at Harrisburg, Pa., College Park, Md., and Morgantown, W. Va., respectively.

Six club members from Preston county exhibited, seven from Garrett county.

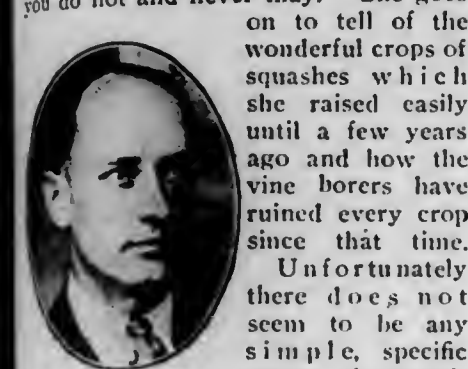


The Ten Prize-Winning Pecks at the Tri-State Potato Exhibit

Garden and Truck Crops

By GILBERT S. WATTS

A CORRESPONDENT writes: "I have been watching in the Pennsylvania Farmer for something about squash vine borers but not a word have I seen about the pesiferous creatures. Perhaps you do not know about them—I could wish that you do not and never may."



She goes on to tell of the wonderful crops of squashes which she raised easily until a few years ago and how the vine borers have ruined every crop since that time. Unfortunately there does not seem to be any simple, specific means of control.

One method of control is to cut the borers out with a knife. Sometimes one may take a very thin and narrow blade knife and slit the stem longitudinally thereby killing the borer without severing the stem. Then, fresh, moist soil should be drawn over the injured parts and new roots are quite likely to form unless decay already has set in. In some instances simply covering the affected portions of the stems with good soil induces a sufficient number of new roots to carry the crop through.

Some of the more important preventive measures are burning of the old vines immediately after the crop is harvested, a rotation which varies the location of the squash patch as much as possible from year to year, and deep spring plowing.

Heavy fertilization and good culture will promote a strong thrifty growth which will make it easier to induce the formation of new roots when injury occurs.

TUESDAY morning before Thanksgiving I was selling celery hearts, and very soon I had a lot of celery hearts.

who does not want tomatoes of the Earliana type is that a number of them do not have Earliana as a part of their names. Canadian, Early Avon, Marvona, Early Mascot, Early Sunrise, Red River and doubtless some others as sold by certain seedsmen either are Earliana selections or crosses in which Earliana characteristics predominate. A good strain of Bonny Best is hard to beat when a combination of earliness and high quality is demanded. Marglobe, a week or ten days later, is maintaining the good name which it received when it first came out.

Mice Eat Endive

Will you please tell me in your column how to get rid of moles or field mice? Every fall they eat the heart out of the endive in my garden.

Wm. F. Borchers.

IN REPLY to your inquiry I have experienced the same trouble which you describe. It is not uncommon for field mice and other rodents to eat the hearts out of endive, celery and some times other crops.

I am not familiar with any short-cut means of controlling these pests. If it is mice which are causing the damage poison is likely to be effective. I have placed shelled corn and squash seeds which were soaked over night in a solution of strychnine in the runways with good results.

On the other hand certain types of rodents do not seem to eat this sort of material and it might be necessary to resort to some of the various traps which are advertised in seed catalogues or may be secured at local hardware stores. Personally I believe one of the most effective means of reducing these pests is to eliminate their hiding places by keeping clean fence rows and permitting no collections of rubbish of any kind to accumulate in or around the garden plots.

G. S. W.

Bermuda Onions

Some time ago I wrote you in reference to the Bermuda onions and I have been looking in your paper and haven't seen anything about them since. I am

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Get these remedies at your drug, feed or hardware dealer or chick hatchery. Ask also for a copy of the 1929 "Lee Way" book, a textbook on diseases of poultry and swine, telling how to diagnose, treat and prevent disease, how to worm, feed, etc. If you prefer, we will supply remedies direct, express paid. Prices, eastern, southern and central states - Vapo-Spray, gal., \$2.50; 12 gal., \$1.25. Flu-Koff, gal., \$2.50; 12 gal., \$1.25. Q. C. O. D. if desired.

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Dr. Hess ROUP TABLETS

Switched to Poultry for Profits

By D. L. GRABILL

NO doubt many readers of the Pennsylvania Farmer have driven over the state highway connecting Carlisle and Harrisburg, Pa. They could not well help noticing the Marriet Farm, with its seventy-four acres, in the beautiful Cumberland Valley, about a mile east of Carlisle. The big farm sign along the highway advertises poultry for sale.

It is evident to the passer-by that this is a successful and profitable poultry farm. It didn't start out to be a poultry farm. But we had better let Mr. Marcus McKnight tell how he got started in the chicken business.

"When a boy in short pants," says Mr. McKnight, "I began to fancy chickens and kept a backyard flock until entering State College. I used to hatch in an old 120-egg lamp-heated machine. Entering the service during the war rather disrupted my college work so that I did not graduate. After the War I entered the U. S. Forestry Service, in Idaho, in the Boise National Forest. I served as ranger and 'smoke chaser,' as they called us.

"Leaving there I traveled the entire West from Canada to Mexico, working around many poultry plants. Upon returning to Pennsylvania and to Carlisle, my home, I worked on a farm near here until I mustered up enough courage to purchase our present farm. My wife and I had already lived on this place one year as tenants, working it on shares, before we bought it.

Poultry Most Profitable

"I started with cows, pigs and poultry. I soon found out by accurate book-keeping that the poultry paid much better than the others for the amount invested, so gradually I switched over to chickens entirely. The dairy and horse barn was changed into a three-story laying house to accommodate more than 1,000 birds.

"I began with three pens of the best stock I could purchase in the form of hatching eggs. White Rocks, Buff Rocks and Barred Plymouth Rocks. I soon decided but one could be kept successfully, and that the Barred Rocks had made a greater profit and the demand for hatching eggs from them was greater. I decided on that variety.

"We were having several thousand eggs custom hatched for us by a distant hatchery, at a cost of three cents an egg. We decided it would be better to hatch our own." Here Mr. McKnight paused in his story to tell why he used the pronoun "we" so much. "You see my wife is my partner in this business. My first name is Marcus, and hers is Harriet, so we took the first part of



Beth McKnight with Duke. Duke is from a hen with a record of 190 eggs in 365 days, while his sire was bred from a hen with a 313-egg record.

mine and part of hers, and got the name 'Marriet' for our place.

"We thought a larger capacity would enable us to sell chicks from our own breeding flock at an advantage, since we already had so many requests for breeding stock, as well as hatching eggs. Many had already told us they wished we would hatch the chicks for them ourselves.

Specialization

"We were fortunate in our selection of an incubator, getting a type in which we could control the heat, the moisture and air movement, just as might be required at each stage of the incubation period. The result is that we have built up a good reputation for producing big, strong, fluffy chicks, that live and grow well. We have produced Barred Rock chicks of such a quality, hatched right, that they are always in demand. Even during this season, just past, when the hatching business seemed to be a little overdone, we had to turn away orders that had not been placed early enough.

"It is of great importance," continued Mr. McKnight, "to get breeding stock that has the vitality and energy to resist disease and withstand frequent weather changes, as well as go through the moulting season without any bad results." The birds here are raised in ideal surroundings, with ample range. They are alert, active, good foragers, and do not moult until late in the season.

Instead of "diversification" we find here "specialization." Mr. McKnight believes one who wants to do something really worth while must specialize in that one thing. On the farm he raises mostly wheat and alfalfa. The former goes into feed for the chickens. The latter makes excellent range, and he expects soon to have the entire place in alfalfa. "We find our birds do a great deal better on a commercial feed," he said. "And, it proves cheaper in the end, as the quality, moisture, control, etc., are not always the best in our locally grown crops.

"We have two cows, so one is always fresh. We make some butter and sell more than we can use, after having all of the milk and cream we can use in the family." Elizabeth Parker Mc-

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KEEPING UP

Readers of Pennsylvania Farmer can't afford to miss a single issue. Watch the label date of your paper and don't let your subscription expire. We stop papers promptly on expiration, unless you renew.

Knight is now five, and Marcus A. McKnight, Jr., is a big boy of three. They like lots of milk and good farm butter. The sour milk and buttermilk goes to the chickens. One horse and a small farm tractor furnish the power for the farm work.

One is held by the attractiveness of Marriet Farm. There is the old-time brick house, with the two chimneys, one at either end, the white windows and "blinds," the big shady trees and the shrubbery, the white picket fence and the wide open, welcome gate. Even around the colony poultry houses, or the hatchery building, it is attractive. Of course one would not on purpose build a big barn, and then turn it into a three-story laying house. But it just shows how practical the McKnights are. Really, the old time barn seems to fit right into the landscape there. And it serves splendidly as a home for over 1,000 fine Barred Rocks.

Mr. McKnight is a member of the Rotary Club. He finds this helpful to him, as he becomes acquainted with the methods of men in other kinds of business, that he can apply to his own. He is vice-president of the Pennsylvania State Baby Chick Association, and a member of the American Barred Rock Club and various other organizations.

The McKnights are making a valuable contribution to the social, religious and agricultural welfare of their community. They are helping to raise the poultry industry of their state to higher standards. And they are doing hatchery operators in general, and their work, as everywhere, it is - Quality Pays.

Nest Box Notes

By R. L. Scharring-Hausen

THE picture of the Bavarian peasant woman on Page 266 of our works for 60¢ per day opens up an interesting train of thought. Was in New Jersey for farm labor by the day run about \$4, so that the native farmer is handicapped at the start by a wage difference of \$3.40 if he attempts to sell competing crops in the world market. This difference he has overcome by the use of machinery, or by selling in a protected home market. However, it doesn't require a very fertile imagination to picture the result if the Bavarian land owners adopt the use of American farm machinery and still continue to enjoy the advantage of low-priced labor.

COCKERELS which are to be kept for breeding purposes should receive a balanced diet of grain, mash, green feed and cod-liver oil.

THE following information, gleaned from a news letter sent out from an agricultural extension department, will be valuable to poultrymen who have outbreaks of chicken pox in their flock.

In traveling about the state, one cannot help but be impressed with the prevalence of chicken pox this fall. The cause and control of this enemy of the poultryman is not known, but experience shows that following to be a cause an outbreak occurs.

1. B-K in the drinking water.

2. Direct contact with the com-

3. Indirect contact with the com-

4. Indirect contact with the com-

5. Indirect contact with the com-

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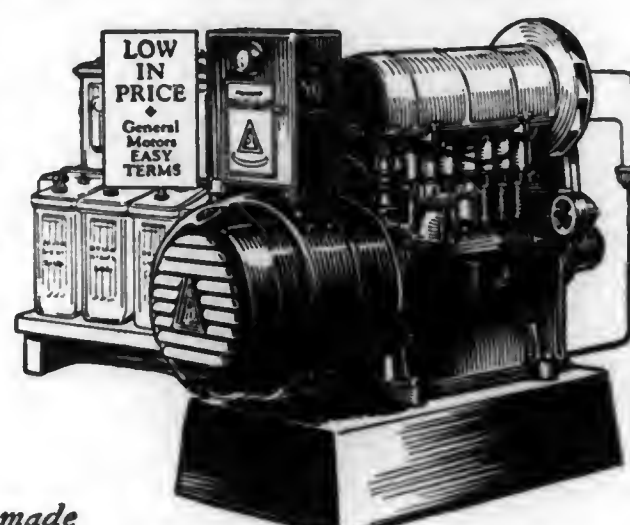
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Mr. McKnight Gives a Lesson in Culling

In Enemy Country

By
James Willard Schultz

Chapter 2.—A Dangerous Trail

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MY mother bade me sit beside her; she put her arms around me and cried. I became angry. "It is not right that we are here, night after night going farther from our people, on and on south into enemy country. Now, while we have the chance, let us each saddle a horse and take our back trail as fast as we can go!" I said.

Wide-eyed, my mother straightened up and stared at me. "Though I knew for sure that he was leading me to my death, I would not leave my man!" she cried. "And you, his son, you whom he dearly loves, for all his silences and his strangeness—how can you propose that we desert him? Think, now! Were I to agree to this that you propose, would you really and right now strike out upon our back trail?"

"No, I would not," I was angry; I did not really mean what I said. Wherever he goes, we must go with him. But oh, it is hard! His ways are so strange! What can it be, the terrible thing that he has done, that has so shamed him that he cannot live with our people?"

"Ah! Would that I knew! None has spoken against him. I am sure that he only imagines that he has done some wrong thing," she replied.

"Well, why not ask him about it? Maybe you can talk him into turning back—"

"You know as well as I do that one may not question a Sun priest. One can only learn that which he chooses to tell about his reason for doing things," she replied.

We were very tired from our long ride. We ceased talking, lay down side by side, and slept.

I was aroused by my mother; she was whispering in my ear: "Awake. Don't move. Just look."

I was lying upon my left side; she was at my back, her head resting upon my shoulder, her arm around me, holding me fast. I opened my eyes as I heard another sound, a loud snuffling and sucking-like-smacking of lips. Haiya! Not twenty steps from us a large real bear (Nitapokaiyo, real bear, the grizzly bear) was eating the meat that we had brought in from my kill; eating it greedily, piece after piece. It suddenly raised its head and growled; another real bear was approaching, a bear of immense size; of body as large as that of a buffalo cow. It came steadily on, the great body swaying, the heavy furred hide shaking at every step. I could feel the heat of my mother's heart, fast, faster and faster. My own heart seemed to be beating in my throat. I was as frightened as she was of these terrible animals that often attacked people at sight of them, that had so strong hold of life that they would fight on and on long after receiving wounds that would almost at once have killed a buffalo, or one of the deer kind. I knew, too, that, instead of springing up and running away, our one chance to escape their anger was to remain just as we were, perfectly still. It was hard, very hard to do that, when our bodies were aching to be up and going.

The first bear suddenly let out a thunder-like roar and made one short stiff spring toward the other one, but it gave no answering roar, just kept coming steadily on, and the first bear backed up to the point, took a large piece in its mouth, and ran off with it. With head high, sniffing the air with its wriggling and wet black nose, the other came straight to the remaining piece of the meat, quickly ate it, and, seeing that there was no more, went trotting off upon the trail of the other bear and on to our camp.

They had gone down the grove. We sprang to our feet and my mother said that they would follow them, that we must go. We ran the other way, out of the grove, and up onto the rim of the valley. Looking back from there, we saw the larger of the two bears resting upon my kill, the other, at a little distance, sitting upon its haunches and awaiting its turn at the meat. Big bear did not intend that smaller bear should have any of it. Having eaten until he could hold no more, he lay down beside the remains of the carcass, to guard it. And another, smaller bear turned and went back into the grove.

THE day was nearly gone. We watched eagerly for sight of my father and talked of our escape from the bears. We had picketed none of our horses, and they were resting quietly at the edge of the river, above the grove from which we had fled. I proposed that we go up to my father, at Old Man's gambling place, but my mother would not agree to it; he must not be disturbed, she said. Sun was near setting when we saw him coming down the valley. We ran and met him, quickly told him of our adventure with the bears.

"Well, you were not hurt by them, all is well with you, and I have had a good vision in my sleep, up at that sacred place. So, now, we will drive our horses into the grove, pack up, and go on," he said. "But we can't do that; one of the bears is in the grove, the other just outside it, lying beside our son's kill," my mother objected.

"They have eaten so much that they do not want to do anything but sleep, and as the wind is down the valley, our horses will not get scent of them. Come, let us pack up and be on our way before night is upon us," he replied, and we could but obey him. He proved to be right; we saw nothing of the bears as we saddled and packed the horses, but my mother and I did not draw free breath until we were across the river and riding up the south slope of the valley.

On the following morning, soon after Sun appeared, we made camp on Foote-across-it Creek (Lee's Creek) and close to the foot of the mountains. Here, too, herds of buffalo and of antelope were everywhere in sight, and, as soon as we had unpacked our horses, I proposed that I should procure our morning meal with my gun. But no, my father said that I must keep my powder and balls for time of great need; and that we must use bow and arrows to procure our food. His order hurt me; better than all else I loved the roar of my gun, the quickly following thud of the ball as it struck the animal of my aim, the suddenness of the animal's fall. Yes, with my gun I felt that I was almost as powerful as is Thunder Bird with his terrible bolts of fire. I spoke my thought; my father smiled.

"Why do you laugh?" I asked. "If that is the way you feel, why didn't you protect your mother by shooting the real bears?" he countered.

"WELL, you know that even guns are not quick, sure killers of those powerful and mad-hearted animals," my mother told him.

"I did not shoot at them because I feared that we might meet our end as Red Plume did, last summer; dead and mangled we found him, beside his empty gun, and near by and also dead the real bear that he had shot fair in the heart," I said.

"In that you did exactly right; I was but joking," said my father, very solemnly. "Bears, real bears, are the one kind of animals that are more powerful than we who walk upon two feet. They can also do that; their bodies, save for their heads, are almost exactly like ours; they are our relatives, yes, relatives who hate us. Avoid them, my son, whenever it is possible to do so. Well, we need meat. I will furnish it. Gather wood, you two, for the cooking fire."

At that, he caught one of our swiftest horses and, mounting and crossing the stream, approached a small band of buffalo that were coming in to water. They saw him and turned and fled back the way that they had come, but, before they reached the foot of the slope up to the plain, he was right among them, and let fly an arrow deep into the side of a two-winters cow. We saw it fall, saw him dismount beside it. By the time we had a fire burned down to a heap of hot red broiling coals, he was back to us with the tongue and other choice parts of the fat animal. We soon satisfied our hunger, and, in the shelter of the grove in which we had unpacked our animals, we lay down and slept until late in the day.

Our next stop was on Little River (Milk River), the most northern of the streams flowing from the great mountains east and south into the South Big River. From there we went to Birch Creek; then to Milk River (Teton River); and from there, traveling all night and well into the day, we made camp on Big River (Missouri River) itself, where Point-of-Rocks River (Sun River) joins it, and but a little way above the upper one of the Big River falls.

Here we found the recently abandoned camping-place of a tribe of our people, undoubtedly the Pikuni; hundreds of lodge sites, the ashes in the fire-places still light and fluffy; cast-off wearing apparel strewn around them; old moccasins, their tops with quill embroideries that were surely of Pikuni designs. We saw, too, that upon leaving the place the people had taken the down-the-river trail; without doubt had gone to the Many Horses Port of the Big Knives, there to trade their winter catch of furs.

As we sat around our little fire, eating the good fat meat that we had broiled, I saw that my father was in cheerful mood, and that my mother, sad of face, was watching him; was wanting, and at the same time dreading, to speak of something that was in her mind.

At last she said to him: "Many Swans, it is but a ride of one day down to the Big Knives' Fort and to our Pikuni friends and relatives there trading. Do let us go to them, camp with them, if only for a few nights."

"Oh, yes! Yes, father, let us do that," I put in,

but even as I spoke I knew that our plea was to be denied; for he was again sober-faced, frowning, staring at the fire.

"You two, why did you ask that of me?" he said, after long thought. "My mind was at peace, but now you have brought back to me unpleasant remembrance of the shameful thing that I did from which I seek escape. To do as you ask, to camp with our brother tribe, would cause my shame to be ever in my mind by day, in my sleep at night. No, I cannot turn from this southward trail. We must follow it until we arrive at the camp of the Crows."

"Oh, my man! By the love that you have for our son, for me, tell us, now, what it was, that shameful thing that you did," my mother pleaded.

For a long time he considered that, and finally answered: "You shall know about it, later on."

My mother bowed her head; tears streamed down her cheeks. She said no more. I was just as unhappy as she was; but what could we do about it? Nothing.

We rested in the grove at the mouth of Point-of-Rocks River, and near set of Sun packed up, and, crossing the wide ford of Big River a little way above its upper falls, continued upon the great trail, running now in a southeasterly direction, so as to avoid the Belt Mountains. The night passed without incident, and soon after daylight we made camp in that deep-down gash in the plain, the walled valley of Arrow River. But we had no more than relieved the pack-horses of their loads when my mother, going to the stream for water, found tracks of men upon the shore and motioned us to join her. They were quite fresh tracks; imprints of feet encased in soft-soled moccasins. So was it that we knew that they who had passed there were enemies, for we Blackfeet and our brother tribes wore only moccasins with rawhide soles.

Said my father, after looking carefully up and down the narrow valley and at the cliffs upon its either side: "With enemies so near, this is no place for us to camp. Come, we must repack our horses as quickly as possible and go out upon the plain."

We ran to the animals, hurriedly saddled them and fastened on their loads, mounted, and went on. The trail into the valley had been down a long, winding, and narrow coulee, and it went up a like coulee upon the south side; it was the one crossing of the walled valley for a long way to the east and to the west. As we crossed the river, and approached the mouth of the south side coulee, three men appeared upon the top of the south cliff, to the west of us, quite a long way to the west, and, by their shouts and their signals and pointings of their arms towards us, we knew that they were the scouts of the enemy war party, undoubtedly resting by the stream, and that they were urging them to hurry down the valley and attack us. We heard the answering shouts of the party, but, owing to the several acres of timber above us, could not see them. Before we arrived at the coulee, we saw the scout-party from the cliff and ran out to head us. My father shouted to my mother and me: "Be at the end for us if those scouts reach this narrow coulee before we can pass from it out upon the plain. Follow the horses on, follow me as fast as you can, and get them got!"

WE began lashing the horses with the ends of our ropes, crowding against them, and, as we entered the narrow coulee, for once, the way the trail was right in the bottom of it. We easily kept them going at full speed. Suddenly, the trail quartered up the right side of the coulee, to avoid the cross-wise ledges, and was so narrow that but one animal at a time could pass along it; and there, upon either side of the coulee, was a line of cut cliffs that prevented the band up and out upon the plain. So was it that my mother and I could not keep the animals from slowing to a trot, and then to a walk, and then to the narrow path. My father kept looking back at us, signing us to hurry, although he well knew that we were powerless to make the band trail on faster. And we, in turn, kept looking back, expecting to see the war party fast gaining upon us. We at last did discover them, twenty and more men, coming on the run.

Just then the trail dipped back into the bottom of the coulee, and widened; and again we were enabled to lash and crowd the animals, first to a trot and then to a swift run. On and on we went and we lost sight of our pursuers. We were now nearly up to the level of the plain; we could see where the cliff walls of the coulee merged into the green grass slopes of its head. But there, at the end of the right cliff, suddenly came the three scouts of the enemy, and, with arrow-fitted bows, stood ready to shoot



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when we should pass under it. They danced; sang; signed to us to come on. They were sure that, with their party close following us, they would soon have our scalps, our band of horses, and the packs that some of them carried. So thought my mother and I. Yes, now was come the end for us. Then, suddenly, my father pointed up to our right, shouted that I was to follow him, that my mother was to keep the band of horses going upon the trail. I saw that, where my father pointed, there was a break in the cliff, very narrow, very steep, but still passable. I followed him up into it, up through it onto the level of the plain, and then we rode straight at the three scouts, there upon the end of the cliff. My father's horse was much more swift than mine. He quitted the animal until he had it going at its utmost speed and left me well behind. He rode straight at the three, awaiting him with ready bows. They let fly their arrows at him, and he shot one at them. The middle man went down, and down went my father's horse, but he himself landed upon his feet, and almost instantly put an arrow fair in the breast of a second man, and at that, the third and last of them turned and headed for that break in the cliff up which we had come, with the intention, of course, of joining his party, coming fast up the trail. My father shot several arrows at him, but failed to make a hit and could not run after him, as he had injured his ankle when he sprang from his falling horse.

I WAS terribly afraid that the man would get into the coulee in time to intercept my mother and kill her, for, alone, she could not make much progress with our band of horses, hungry after their long night journey and eager to stop and graze. I dared not shoot at the man from the saddle; the motion of my horse would make my aim uncertain. So it was that I checked the animal, sprang to the ground, and, kneeling, and with careful aim, pulled trigger. Whoom! I heard the ball thud into the man, and dimly through the powder smoke saw him throw up his hands and stagger, and fall. And at that I felt as I never had before in all my life: I shivered, and yet felt hot. I was both glad and sorry that I had taken a human life. I started to go to the fallen one, count coup upon him, take his weapons, but my father shouted to me to hurry to him. I mounted my horse and went and helped him to mount behind me, and just then we saw our hand of horses going from the head of the coulee out upon the plain and heard my mother shouting to us for help. She came up in sight, lashing the stragglers, frightenedly looking back, and we knew that the enemy were coming fast upon her trail, were almost upon her. We joined her just in time, for they were within long bowshot; they did let fly some arrows at us, but none took effect. As we urged our band on to faster speed, my father raised the victory song of our people and I joined in. When the enemy gave up the chase, as they soon did, and turned back to their dead, I caught a fresh horse for my father. We were now very tired and sleepy, but went on until, from the high points that we topped, we made sure that we were not being followed. Sun was long past the middle when we at last made camp on Wolf Creek, a little stream flowing south and east into Yellow River (Judith River). My father was very happy over our success in killing three of the enemy; Crow, he said they were—he had plainly seen their faces, tattooed with streaks of blue. And by this time I had become proud of my share in the fight; of course it was right that I should kill one who had attempted to kill us.

But my mother, as she broiled some meat for us, was smiling; she said to my father: "Almost I died in fright after you two left me to drive on our horses, and I saw those many enemies fast overtaking us as I heard the hungry and hungry cry."

"We killed three of them. You survive. Be happy," he replied.

"There can be no happiness for me on this dangerous trail. If we are not killed somewhere along it, I am sure that the Crows will wipe us out when we enter their country."

"Woman, take courage. Believe in me. I know what I am doing. The Crows, enemies of our tribes though they are, are going to be friendly to us three," my father interposed.

"As well say that real bears will be friendly to us!" she exclaimed, and would say no more. And at that, all my fears returned. I believed with her that our end was near.

During the remainder of the day we slept by turns, and by turns sat upon the rim of the little valley and watched for the Cree war party to appear upon our trail. They did not appear; doubtless they thought it useless to attempt to overtake us. At dusk we packed up and went on south. In the mid-

dle of the night we crossed Yellow River (Judith River), ascended the pass in the Yellow Mountains (Judith Mountains), and in the first light of morning made camp in a grove of pines upon their southern slope, and hurriedly cooked and ate some meat. From the edge of the grove, in the full light of day, we could plainly see, well out upon the plain, the dark gash of South Bear River (Musselshell River), flowing east and north to lose itself in Big River. And beyond it, far off and dim against the blue, we made out a dark rise that my father said was the Bighorn Range of mountains, in the country of the Crows. He had more than once traversed the foot of them when upon raids against that tribe. And now he was taking my mother and me to those very people; to the relatives of men whom he had killed. Again my mother wept and begged him, before it was too late, to turn about and head for Many Houses Fort and safety with our brother tribe there encamped.

To that he shortly replied: "We go on! Again I tell you that we shall be as safe with the Crows as we are with our own people!"

He then told my mother and me to sleep while he herded our horses, to keep them from straying out from the grove to the open grassy slope, where they would surely be seen by any passing war party. Within the grove there was plenty of grass and pea vines for the animals.

Later in the day, when Sun was well past the middle of the blue, my mother and I took the watch and my father slept. The horses, filled almost to bursting with the rich grass and vines, were all lying down and sleeping, and so required no herding. So was it that we two went to the lower edge of the grove, and, sitting in the cool shade of the trees, looked out upon the great southern plain and rimming mountains that had once been Crow country, but was now lost to them. Our far-back fathers, brave men of the Siksika, the Kaina, the Pikuni, and our friends the Utsena had wrested it from them by many a hard-fought battle, and at last driven them to the south side of Elk River (Yellowstone River). Was it any wonder, then, that they hated us, this tribe to which my father was taking us? said my mother.

"WHEN he awakes, again ask him to turn about and take us to our own people," I said.

"As well ask the wind to change its course, the rivers to turn and flow up their valleys!" she replied.

Sad though we were, terribly low of heart, we could not help feeling proud that it was ours, this great country that our fathers had taken from the Crows. It was black-and-yellow with countless herds of buffalo and bands of antelope. Upon the mountain slope below us and at either side were everywhere deer and elk, resting, grazing, traveling about, singly and in little bands. We were in need of meat, and I proposed that I procure some with my gun. My mother would not allow it. I was to save my powder and balls for a time of great need, as my father had ordered, she said. So was it that I strung my bow and fitted an arrow to it. Soon three elk came grazing along, and, as they were passing close in front of us, I shot and killed one of them, a one-winter cow, quite fat. Silently, without happiness in the work, we partly skinned the animal and took some of the meat. How could we be happy when constantly fearful of that which was ahead of us, somewhere there at the foot of those dim, far-south mountains, their tops now red in the light of setting Sun? Gathering bark from cottonwood trees around a little spring, we built a smokeless fire, cooked some of the meat, and called my father to eat with us. He came, singing one of

his sacred songs, ate plenty of the meat, and praised me for procuring it with bow and arrow. My mother and I had nothing to say.

After looking again and again at our sad faces, he said to us: "I do wish that you would cast out the fear that is in your hearts: three or four nights from now, you are going to be very happy."

"Kyaiyo! He says that we are going to be happy!" exclaimed my mother.

My father winced, but made no reply.

WE saddled up, lashed the loads upon our animals, and went down the mountain and out upon the great plain. In the middle of the night we crossed South Bear River, and at dawn came to rest on the shore of a small lake that was the watering-place of immense numbers of the animals of the plain. All day long, and from all directions, they approached it, and those of them that got scent of us turned suddenly around and fled. That made us very uneasy—my mother and me—for well we knew any chance war party, near or far, would come to learn the reason for their flight from the lake: except in the mating season, buffalo and antelope were always slow in their movements when free from the presence of their great enemy, man. My father noted our fear, and smiled, "Rest; sleep well. I had a good vision during my last sleep. I assure you that no enemy is near," he told us.

He did sleep during the first half of the day, and when he awoke and took the watch, we were so tired that we could not help but sleep. We awoke just before set of Sun, at some meal that we had broiled back in the mountains, and again went on. The night was cloudy, but without rain. My mother and I had to work hard to keep our band of animals going at the fast pace that my father set from the time that we left the lake. Again and again he shouted back to us never to let them slow down to a walk, for we must make camp in a grove of Elk River before break of day. Now and then we were obliged to stop to relish a slipping pack, and he became very impatient over the delay. And at last, when the lashings of a pack broke and it fell and we had to hunt about in the grass for the different things that were scattered in it, he scolded us for not having fastened it on with a stronger rope.

"But why be so uneasy when you are sure that the Crows will receive us with friendly greetings? Why, then, are you so anxious to arrive at the border of their country in the night and hide in a grove?" my mother asked.

"I have my reason for it," he replied shortly.

He worried, too, about the cloudiness of the night; unable to see the stars or certain buttes of the plain, he feared that he would not be able to strike Elk River at the point where he intended to cross it, close above the mouth of Bighorn River.

Morning came when we were still out upon the plain, but dark as the night had been, he had held his course, for close ahead of us we could see the breaks of both rivers. Arriving at the rim of the valley of the greater river, we stopped and looked up and down it and across at the valley of the smaller one: in neither of them was smoke of lodge fires; nowhere were horses in sight; in the green grass bottoms and along the valley slopes, as far as we could see, buffalo, antelope, elk, and deer were peacefully resting or grazing. Between us and a big grove opposite the mouth of the Bighorn was a large herd of buffalo. My father looked at them a long time, and at last said to us, "We will not disturb them; we will take no chances that we can avoid." And with that he led back out upon the plain and to the west, and then down into the valley, where were no animals for us to frighten, other than a few deer. And so, we, tired from our long and hard ride, came to rest in a large grove of cottonwoods and willows bordering Elk River; quickly we built a smokeless fire of bark, and cooked and ate plenty of the meat of the elk that I had killed back on the slope. My father then took the watch, and my mother and I lay down and slept.

Sun was well past the middle of the blue when my father awoke us, and told us to take our turn on watch and to be sure to awaken him when Sun was still quite a little way above the mountains. Our horses, we found, were resting and grazing in the center of the grove and required no herding, so we went to the outer edge of the grove and sat down.

Out in the bottom, between us and the valley slope, a few old buffalo bulls were grazing, and farther down, opposite the mouth of the Bighorn, was a large herd of cows and calves that we had avoided frightening in the early morning; it was peaceful enough where we were, but more than ever my mother was low of heart. (To be continued.)

The Cheerful Plowman

The New Floor

THE old floor was a corner, the wood was soft as sponge, made up of cracks all gaping, a trough and then a plow. It was the early custom to lay soft floors. I think the kind that soak up water and always want a drink. They soaked up grease and drippings, took on a fresh look, grew blabby, spotted, dabby, an underfoot disgrace. We painted more than yearly, used yellow paint of course, we whacked the liquid with vigor, with more than common force, but spite of all our efforts that blameworthy floor would spot whenever soap was scattered or gravy piping hot.

The women keen for neatness spent time in reckless way in scrubbing, brushing, digging some seven times per day. With backs all bent and aching they worked upon their knees, did all the farmers' women and daughters, if you please, but spite of all their efforts they cried, "Oh, dear, oh dear! Those spots cannot be lifted, they go clear through, I fear!"

But these new floors, by cracks, they are as tight as seal, all pushed like a mirror, as bright as southern ice. With wax upon their features they look as sleek as her; they're sure the kitty's whiskers, they're something more than nice! They need no paint, spread yearly, while scrubbing's merely play, my wife saves forty minutes from every working day. The women folks are happy, their faces beam with hope, they save on spinal columns, they save on brush and soap! J. E. T.



**Easy to Make—Easy to Launder
—Easy to Wear**

made. Remember the three rules, and your girls will always be neat and comfortable. Dresses should be easy to make, easy to launder and easy to wear. Seek then good patterns, easily made, easily ironed, comfortable to wear, and of such plan that the child may develop independence by being able to dress herself.



(Courtesy U. S. D. A.)

Easy to Fasten

Little girls' dresses should be so simple in fastening that the wearer can

Again from ye old towne of Lancaster,
Our greetings are going to you,
To wish you a right Merry Christmas,
And a most happy New Year too.

The Four HERROL
—Marguerite
—Betty
—Blanche
—Walter



**MERRY CHRISTMAS
FROM
HARRY PEEBLES**

Farm builders are not asked to take out a permit as city dwellers must before building. Too often they are not familiar with the conditions needed to secure adequate insurance. The and the connections are always subject to insurance rules. Good builders now make a tile lined line, using the pre-

cisely the shape of the shoe
up with it, having the joint
This makes a chimney, and
because no combustion takes
the adjoining wall. The
crack carries a little

[illegible]

ADVERTISING reduces the cost of products that add pleasure and comfort to living.

Dear Pennsylvania Farmer Friends:
The "Jiffy Knife Sharpener" you so kindly sent me as a reward in the Kitchen Kinks contest has come and is in daily use. I thank you very much. It is perfectly splendid and I am very proud of it. All success to the Pennsylvania Farmer. Mrs. C. J. Myers.

I discovered that if a teaspoonful of soda is dissolved in a quart of cold water, and two pounds of beans are soaked in this water for 24 hours, they will be as soft as any new beans baked and are easily digested.—A. F.

In your prettiest casserole or baking bowl place one-half the potatoes. Cover with half the apples. Sprinkle with half the sugar and dot with half the butter. Sprinkle with cinnamon, and salt. Repeat the process. Then bake in a moderate oven for 45 minutes. Serve piping hot in the same dish as baked.

Metsey Ford.

It also provides a condition of 'high turbulence' behind each wing, which further increases the washing action. No other washer has the "Boss Flushor."

There is now no excuse for any family to be without a Boss Thermo Washer. Every Boss dealer has been authorized to extend wonderfully easy terms to all who wish the convenience and do not forget that there is a Boss Washer to fit every purse as well as every washing need.

Every man should realize what the present of a Boss Thermo Washer will mean to mother or friend wife. Years of freedom from wash day toil and brighter, cleaner washes result. Thousands of Boss Washers have been in use for from 15 to 20 years. Give her a Boss Thermo for Christmas.

BOSS

Thermo Washer

ELECTRIC OR GASOLINE MOTOR

Let us send you literature covering every detail of Boss Washers and tell you why Boss makes a better washer at less cost. If you do not know the name of your nearest Boss Dealer we will tell you.

A Boss washer with the wonderfully improved Gasoline Motor that Boss discovered is especially adapted for farm and suburban use where no electricity is available. It is made like the finest auto motor, 4 cycle instead of 2 cycle. It can also be used to operate churns, separators, etc. Just step on the starter and away it goes.

The
Boss Washing Machine Co.

Makers of over One Million
Quality Washers since 1889
CINCINNATI, : : OHIO
Write for your local dealer's name.

THE BOSS WASHING MACHINE CO.
Dept. PF-12 Cincinnati, Ohio.

I am interested in knowing more about Boss Washers.

Please send literature and the Free Vanity Mirror

Name

Address.....

A handsome vanity mirror made from a section of the Boss-Thermo Wall material will be sent Free to every woman interested. Write for it today.

Give them Hardware gifts this Christmas



Practical Presents

Useful things that bring
the greatest holiday joys

THESE are the days when there is nothing like gifts of hardware to bring real Christmas happiness, for they are "gifts of utility"—something that will fill a real need or provide extra comfort or convenience for the person who receives it. Such "gifts of utility" are the sensible, worthwhile kind to give and they are the most cherished and longest remembered, too.

It is of utmost importance that you give good hardware, a dependable kind that will do every-



Look for the “Tag” in the window!

An American Editor Abroad

(Continued from page 2)

these holes in the rock the early Christians took refuge at the time of the Roman persecution, and tales of their fortitude survive in the literature of Provence.

Les Baux, the region's ancient capital, is well described by a French author, but the translator of his work makes quite a mess of it. For instance the translator says that the ancient town's castle "was built in the Xth century, besought and stamped flat in 1355 by Robert of Duras, dismantled in its highest part by Louis the Eleventh's order," etc. From which we gather that the castle was besieged and razed, as indeed the French author says. It is said that Dante in exile came to Les Baux and from its heights and depths and caverns got his description of the infernal regions.

Olive trees come into view south of Les Baux on the way to Arles. That city was a seaport in the days of the Roman empire and for centuries after. But the Rhone, depositing silt for centuries about its several mouths, has left far inland what was one of Caesar's naval stations. This southern plain of Provence was formerly a richer agricultural region than it is now, for the Rhone overflowed it and left a yearly deposit of fertility. But since the floods of the river have been controlled the region has lost in fertility more than it has gained in other ways. Such at least is the view of those who have studied it. Flood control, in this case at least, has brought with it much loss as well as much gain.

Fashions in Bull Fights

The foundation of Arles is attributed to the sixth legion of the army of Julius Caesar, but probably it was an old seaport when that army first saw it. No matter who founded the city it became an important Roman center with great commerce both maritime and inland. It had a wonderful theatre, part of which is still to be seen; an arena not far inferior to the Colosseum at Rome; a forum, baths and other public institutions. The arena, though decayed by towers erected for defense during the middle ages, is still well preserved and is used now for bull fights. The same is true of the arena at Nîmes, where the killing of six bulls was advertised for the coming Sunday.

Bull fights in Provence are of two kinds. In one the bull is not killed.

this ancient city is a little guide book translated into English by Miss C. Feuvrier, Professor of English. In diction and in punctuation it is unique and enjoyable too—to one who knows our language. I suspect that she translated the description of Les Baux, for she informs us that Arles was "be-sought" seven times, and that Theodor the Ostrogoth "deemed it an honor of rebuilding the upset city." She habitually uses the word "antic" to express ancient or antique—the "antic theatre" for example—and she uses the symbol & throughout to express our commonest conjunction. Her list of saints translated into English includes "St. Jack the major & St. Jack the minor", who with other saints stand "between antic columns supported by lying lions." But the translation is rather graphic at times, for the most ancient forum "was almost smothered up by more recent buildings"—the fate of the antiquities of every land. It is interesting to read that "the most important of Arlesian cemeteries, in the Roman time, was going along the Crau Road beyond the town, across marshes, all around". And people were still buried in this cemetery "after the disparition of paganism."

Modern Equipment in Arena

It is impossible to give all the quaint sentences of Miss Feuvrier's translation; but would most of us do any better if we had to turn a French guide book into English? I heard many years ago of an English lady who addressed her coachman as *cochon* (pig) instead of *cocher* (coachman) but never learned from him that she was wrong. At Grenoble I put my driver and my comrade into our car and told the driver where to go. He never changed countenance, started his engine and his car, and drove about ten feet! We were right in front of the building I named all the time. We laughed, and then he laughed, but he maintained his gravity until we lost ours.

From Arles we went to Nîmes, where we saw the Roman arena, the gates of Augustus Caesar and other antiquities which I must not attempt to discuss. The arena is kept in repair by the city and as heretofore staid is now used for civic and other entertainments including bull fights for which the arena is equipped with gratings.

The Forgotten Great

At Arles we saw again the fertility of monuments. There are many Roman and early Christian tombs and monuments, all merely antiquities now though doubtless the finest of their time were meant to perpetuate the fame of some notable man of the time. Costly carved stone coffins, but whose coffins nobody knows or cares, are many among the relics of Arles.

Not the leas' interesting thing about

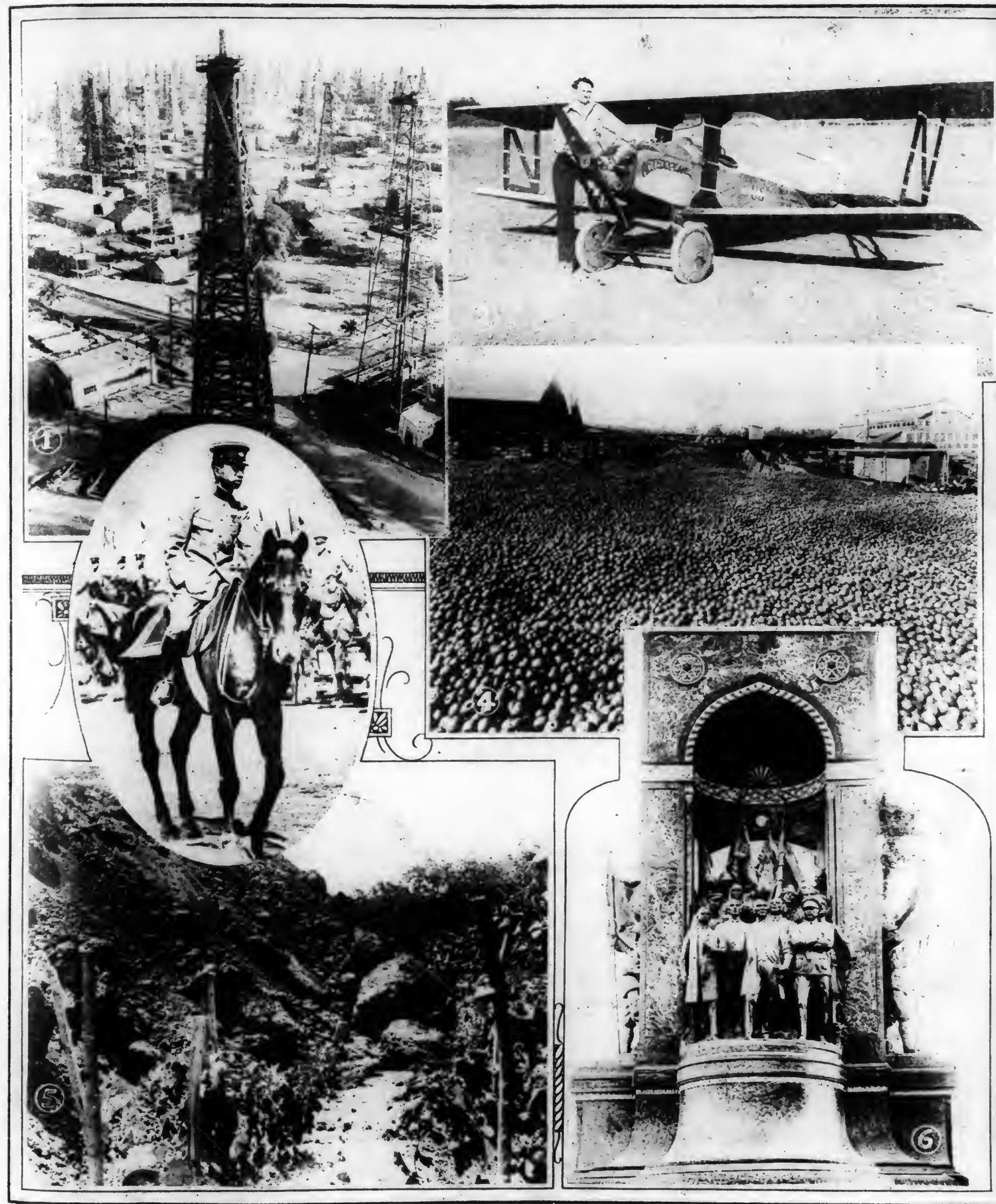
The second step was to cut the lining material to the same shape as the lining. The lining was then placed over the pattern and pinned in place. The lining was then cut to the same shape as the pattern, but with a broader border.

The advantage in cutting down the old cloth on only one side is that one can thus put the worn edges and corners where they will get less wear, if they cannot be eliminated entirely.

Besides the cheerfulness of the color we appreciate the smaller cloth in the laundry. These new-old table cloths extend only five or six inches over the edge of the table. Vida M. Bates.

edge of the table. Vida M. Bates.

EVENTS CAUGHT BY THE CAMERA



1.—An unusual view of an "Oil-Well Forest"—and the most valuable bit of land in the country, that tiny triangle on which derrick in foreground is built—in the Sierrita Hills of the Los Angeles basin.

in the Signal Hill field at Long Branch, Calif. The slot is 32x50x84 feet, with an area of about 1,518 $\frac{1}{2}$ square feet, from which over \$1,000,000 in oil has flowed and which now produces 800 barrels a day. That would make a mere handful of dirt from this single well worth about \$250.

World's tiniest biplane. Photo shows Ted and his little "Meteo-plane"—the tiniest biplane in the world. Built for practical flying. The wings are only 12 ft. long, and but 4 ft. high, and the fuselage spread of 14 ft. It is a perfect toy for the littlest aviator.

3.—The Emperor of Japan, Hirohito, whose coronation took place nearly two years after the death of his father, Yoshihito, who died December 26, 1926. Hirohito is the 124th Emperor of his line.

4.—Photo shows an impressive view of the millions of apples piled up at one of the many packing plants near Winchester, Va. Trainloads of these fine apples are being shipped out for domestic and foreign consumption. This state has 11,000,000 apple trees and ranks second in the Union as an apple-growing state.

5. A very well intended but ill-fated attempt by the Iyaleye to form a "People's Party" in 1990, which was not successful, was due to the fact that the party was not able to attract the support of the Iyaleye, who were not interested in the party's activities.

6.—Photo shows the beautiful new Victory Monument which has just been inaugurated at Constantinople. The first Turkish monument ever to be erected there, according to ancient Mohammedan law, figures of men or images were not allowed to be erected in mosques or any public or private places, but Turkey's Dictator, Mustafa Kemal Pasha, has gradually broken down the old Islam traditions. More audacious, however, than merely shattering the Koranic law, was his move in making his own figure, in the monument, which shows him in the center, surrounded by his staff, as a deity in his own right. The people of Constantinople are shocked by this sacrilegious innovation. As a result,

Farmer's Business Letter

WITH the holiday this week and light-runs on other days, the total supply of hogs showed a material reduction and the market improved a little. Total supply here was only about 124,000 head, against 215,000 last week, 220,000 the same week last year and 179,000 two years ago. Shipping demand took fewer hogs this week but a larger percentage of the run and this helped. While prices at the end of the week were 35 to 40 cents higher than a week ago, the average price of the week was down to 85.60, low since April. A year ago this week the average price was \$8.65, with two years ago \$11.90. Quality of hogs is good, with average weight this week 237 lbs. against a five-year average of 233 lbs. Fresh pork bins are now quoted at 13 1/2 to 18 cents, against 15 to 22 cents a month ago and 19 to 27 cents two months ago.

The November hog market was a disappointment to producers. Receipts here totaled 696,000 head, largest since March. At the same time outside demand was light, all over the country, waits upon Chicago's opening to indicate the trend. Direct shipments to eastern markets, that is from Midwest producing centers, are supposed to have had some effect here, though reports indicate that hog production in some eastern states has been on a rather generous scale.

November hogs came well finished, as shown by the fact that the average weight for the month, 236 lbs. (est.) stands heaviest since 1900, with one exception, that being November, 1925. Range of prices during the month was narrow. Of late top and average price have been only 20 cents apart, whereas in early October the spread was 65 to 75 cents.

The average price of hogs in November was \$8.85, lowest since March and lowest for November since 1923.

Nothing but lighter receipts can push the market up to a higher level during the next three months, and as yet there is nothing in sight to promise any material reduction in marketing.

Cattle Regain Part of Loss

The cattle market this week remained some of its last week's big loss, but trade during the week was only fairly good and demand moderate. Outside of some tail-ends from international carlot exhibits the supply offered ran largely to short-ends, some of them very much on the short order, and few loads of steers of quality and finish appeared. Steers were marked at 10 to 11 to the week, cows and heifers at 8 to 9 to the week, and calves at 8 to 9 to the week.

price of lambs this week, at \$13.25, showed a gain of 25c over last week, and compared with \$14.65, average for the week during the last five years.

During November receipts of sheep and lambs here totaled 285,000 head, smallest for the month with two exceptions since 1896. Average price of lambs for the month was \$13.15, 15c above October which was lowest of the year, and weights are expected to run heavy due to abundance of feed. Shortage of hay in Colorado and Nebraska may affect weights some after the middle of January, however, when lambs from the feedlots of those states start coming. Last January, February and March average weights were heaviest in many years. The March average at 90 lbs. was heaviest for the month since 1902, due to the big number of heavy lambs from Colorado and Nebraska. Not much stuff is moving to the country at this time. A few lambs move out for feeding, but not much is available in the way of aged stock, either ewes or wethers.

Grain Trade Still Quiet

The grain trade had another quiet week. Only fractional price changes took place during the entire week. Corn marketing is rather liberal, but demand is strong, preventing accumulation. Wheat traders are still looking for developments that will put some life into the trade, with none in sight. A government official visiting the Chicago market is quoted as saying that wheat is 15 cents too low, that statement being in keeping with recent comments of the Secretary of Agriculture. "Just on what premise this idea is arrived at is not quite clear," says a grain man. "Inasmuch as we have a surplus to sell and our prices at the moment are relatively lower than our competitors and the foreign markets, it would seem to us that we were to add 15 cents to the price of today it would militate against disposing of this surplus. The trade is in a rather nervous state of mind over the possibility of what Congress

Farm Conditions

Dickenson Co., S. W. Va.

Nov. 26: Now that the corn crop is practically harvested there is much complaint of the defective quality, not more than 50 per cent of it is marketable. The early frosts damaged crops of nearly all kinds. Cattle are looking well but the weather is unusually severe on them for the season. E. M. Beverly.

Tioga Co., Southern New York

Nov. 23: A severe downpour accompanied by a regular hurricane, which resulted in a very much damaged corn crop. Potatoes are now 45 to 50 cents higher, and are steadily strong, and yearlings 25 to 30c up. Week's receipts were moderate at 57,000, against 81,750 last week, with top feeders at \$13.50, same as last week. Lamb in almost the same notch as last week, comparing with 18 to 24c last year and 19 to 26c two years ago. Average

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may do in the way of farm relief. In the meantime we believe that the market is a two-sided affair without any direction of price tendency."

In the principal production sections of the winter wheat belt crop conditions are reported generally satisfactory. Recent improvement is reported in the flour trade.

No. 1 timothy hay here is quoted at \$23 to \$24; No. 1 timothy and clover heavy mixed at \$24 to \$25; alfalfa at \$18 to \$20; clover seed at \$23.50 to \$31.50; timothy at \$5.10 to \$5.40.

Testing Corn Pickers

There is much interest in the work being done by corn pickers this season, since they are relatively new and the labor situation favors their use. Unfortunately, conditions this year are not conducive to mechanical husking. The stalks are unusually brittle and are blown down badly. Due to the brittle stalks there is an excessive number of ears upon the ground. Dealers believe this condition has greatly limited picker sales this year.

The amount of corn left in the field by mechanical huskers varies with the condition of the corn. Most owners estimate the amount left this year as being approximately five bushels per acre. This is due to this year's poor husking conditions. When conditions are more favorable a husking machine leaves no more corn than the average hand husker. A machine saves all the ears on the stalks. It is, of course, unable to pick up the ears blown off the stalks unless they are lying directly in the row in such a manner that they are caught by the gathering chains or the snapping rolls. The ideal type of corn for machine harvesting is one producing firm stalks and ears with firm, tough shanks.

Benefit from Cheese Tariff

Wisconsin dairymen are convinced that the increased tariff in Swiss cheese is worth real money to them. It is figured in one county that last year every farmer milking 20 cows and delivering his milk to a Swiss cheese factory received an additional \$102 on account of the higher tariff, and further the tariff has increased the return on other kinds of cheese. WATSON.

Chicago, December 1, 1928.

38.2 pounds last year. Corn husked, crop light. Condition of winter wheat good. Late potatoes dug, price going up. Milk 6 cents in bulk. Eggs 60c per dozen. A redness in the leaves of the strawberry plants makes the patches look beautiful. Cora J. Sheppard.

Trumbull Co., N. E. Ohio

Nov. 23: Has been a good fall for corn husking. Corn was only a fair crop. Hogs seem plentiful. The new wheat crop is doing fine. Prices are good. Butter 50c and 55c. Eggs 48c. Potatoes \$1.25. Potatoes lost with their corn and sold. Full price for corn and wheat. E. M. Beverly.

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Trumbull Co., N. E. Ohio

Produce Markets

The potato market continues weak and drab, especially at eastern shipping points, says the U. S. Department of Agriculture Market News Service. Carlot movement is light, owing to slack demand from dealers in producing sections. Supplies in city markets vary from moderate to liberal, with demand generally slow and price changes slight. New York Round Whites ranged \$16.15 per 100 pounds in eastern cities and touched \$1.75 in Atlanta. Pennsylvania Round Whites fell below \$1 in Philadelphia but followed general range of \$1.15. Maine Green Mountains sold at \$1.20; 1.35 in eastern cities and Long Island Green Mountains \$1.35 to \$1.45. Producers in western New York were still getting only 35c per bushel net.

Onion markets continue to show very strong tone, with good demand for first-class stock. Some sales in New York producing sections for stock showing 75 per cent large onions reached \$4.50 per 100-lb. advance of the first of December. The amount of 25 cents over preceding week. Small to medium sizes ranged from \$3.50 to \$4 in that section. Sentiment appeared confident and further advances were expected. About the same range of prices prevailed also in Michigan and values were well maintained at far western shipping points. Best yellow stock sold at \$4.60 to \$4.75 in eastern markets, with fancy lots up to \$5. Dutch onions sold mostly \$4 per sack.

Celery markets were lower around December 1, owing to the let-up in holiday trade and the poor condition of some stock coming out of western storage. Prices declined about 25 cents, ranging \$2.65 to \$2.75 per crate of 5 to 7 dozen and poorer lots sold as low as \$2.25. Some city markets declined 25 to 50 cents.

Cabbage markets began the month nearly in steady position following sharp advances of preceding weeks. Trading and shipments continued active in producing sections. The market tone at western New York shipping points was nearly as confident on cabbage as on onions and there was talk of further price gains. Stock appears to be of good quality and few complaints are received from destination. City markets were well supplied and demand was reported slow to fairly active. Prices of Danish type stock advanced to \$50 per ton in western New York, but general range was \$40 to \$45. Domestic cabbage sold at \$30 to \$33 in Baltimore. Shipments, mostly from New York and Wisconsin, ranged close to 100 carloads daily. A few lots of cabbage from Denmark and Holland have been received in eastern seaboard markets.

Holdings of carrots in eastern producing sections seem more willing to let them go at \$1.25 to \$1.35 per bushel and \$2.25 to \$2.40 per 100-pound sack, but some lots sold at 15c higher. Shipments are light and demand limited. New York carlots daily range 125 to 150 bushels to the lot. Prices of Danish type stock advanced to \$50 per ton in western New York, but general range was \$40 to \$45. Domestic cabbage sold at \$30 to \$33 in Baltimore. Shipments, mostly from New York and Wisconsin, ranged close to 100 carloads daily. A few lots of cabbage from Denmark and Holland have been received in eastern seaboard markets.

Monday's Representative Sales

No.	Wt.	Pr.	No.	Wt.	Pr.	No.	Wt.	Pr.
1	125	13.75	2	140	13.00	3	137	12.90
4	132	12.50	5	130	12.50	6	127	12.50
7	125	12.50	8	117	12.35	9	136	11.50
10	118	11.50	11	108	11.50	12	105	11.50
13	110	11.25	14	109	11.25	15	108	11.25
16	110	11.00	17	117	11.00	18	122	11.00
19	110	10.75	20	103	10.75	21	103	10.75
22	115	10.50	23	104	10.50	24	108	10.50
25	102	10.25	26	95	10.00	27	91	10.00
28	73	8.50						

Cows and Heifers

No.	Wt.	Pr.	No.	Wt.	Pr.	No.	Wt.	Pr.
1	950	11.00	2	730	11.00	3	1100	10.50
4	840	10.00	5	900	9.75	6	1450	9.50
7	107	9.00	8	1010	9.00	9	740	9.00
10	880	9.00	11	900	9.00	12	852	8.90
13	1060	8.75	14	1250	8.50	15	1067	8.50
16	965	8.50	17	590	8.50	18	1067	8.50
19	890	7.00	20	1080	6.75	21	940	5.75
22	75	5.00	23	1191	5.00	24	795	5.00
25	170	5.00						

Hogs

No.	Wt.	Pr.	No.	Wt.	Pr.	No.	Wt.	Pr.
1	400	11.00	2	400	11.00	3	400	11.00
4	400	11.00	5	400	11.00	6	400	11.00
7	400	11.00	8	400	11.00	9	400	11.00
10	400	11.00	11	400	11.00	12	400	11.00
13	400	11.00	14	400	11.00	15	400	11.00
16	400	11.00	17	400	11.00	18	400	11.00
19	400	11.00	20	400	11.00	21	400	11.00
22	400	11.00	23	400	11.00	24	400	11.00
25	400	11.00						

COMING EVENTS

Date	Event	Location
Dec. 11-13	Penn. State Fair	Harrisburg, Pa.
Dec. 11-14	County Poultry Show	Union, Pa

ANOTHER KITCHEN MYSTERY

*Where does
that Flavor
come from?*



WITH the first mouthful came a surprise—a delicate, unmistakably new flavor, a part of the very heart of the cake—perfectly delicious! Strange—there had been nothing startling about it when she took it from the oven—apparently just another well-baked cake. What caused it? Where did that flavor come from?

It's simple. The flavor was in her flour when she started—she had used the right flour. Pillsbury's Best, like most good flour, is milled and tested to make baking sure and easy; more than that, Pillsbury's Best is milled and tested to make things *taste good*. This additional richness in flavor is important. The food editors of some of the leading women's magazines, who have made a life-long study of baking, say that the flour you use has a great deal to do with the flavor of the foods you bake.

The secret of flavor is in the wheat fields—

While two kernels of wheat look much alike, they may be vastly different. Some types of wheat possess a richness of flavor lacking in others. The Pillsbury Flour Mills Company, working with the facilities of the largest flour mill in the world, has developed its own method of selecting and blending these richly flavored wheats. These are then milled to a standard of dependability which has been famous for sixty years. The result is Pillsbury's Best Flour—your surest protection against baking failures, and your guarantee of finer flavor in everything you bake—cakes, biscuits, pastry, bread!

Write for free booklet "100 foods from 4 Basic Recipes". It will show you how to make 100 delicacies from only 4 basic recipes — a new variety in your baking! Pillsbury Flour Mills Company, Minneapolis, Minnesota.



for finer flavor
in everything you bake —
cakes, pastry, biscuits, bread

Pillsbury's Best Flour

PENNSYLVANIA FARMER

Consolidated with

PENNSYLVANIA STOCKMAN and FARMER

December 15, 1928

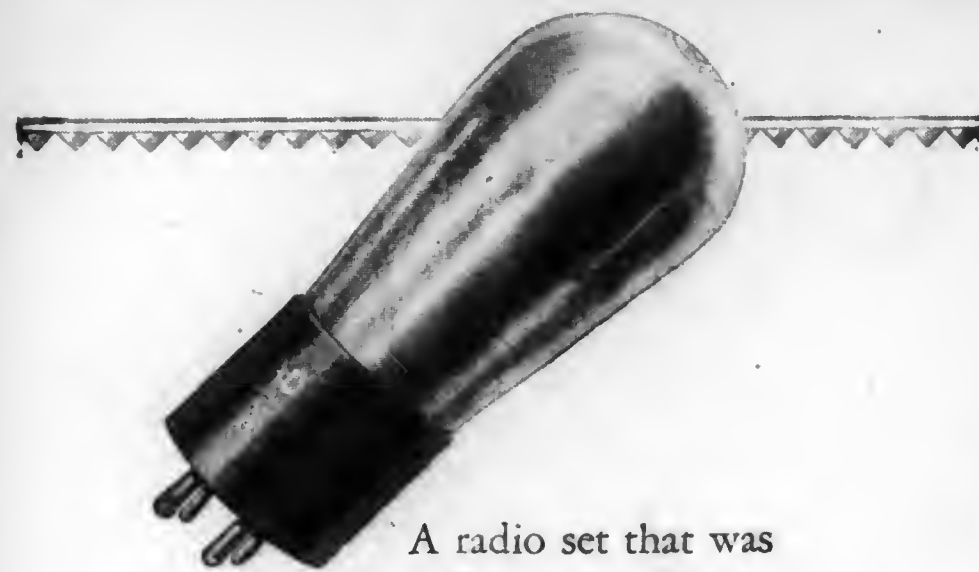
Established 1877



Pittsburgh

Harrisburg

Philadelphia



A radio set that was a Christmas gift last year now needs a Christmas gift of a brand new set of RCA RADIOTRONS. A complete change of tubes after a year of average use is necessary to maintain good reception and volume.



RADIO CORPORATION OF AMERICA • NEW YORK • CHICAGO • SAN FRANCISCO

RCA Radiotron
MADE BY THE MAKERS OF THE RADIOLA

Save Money on AUTOMOBILE INSURANCE

January 1st, 1929

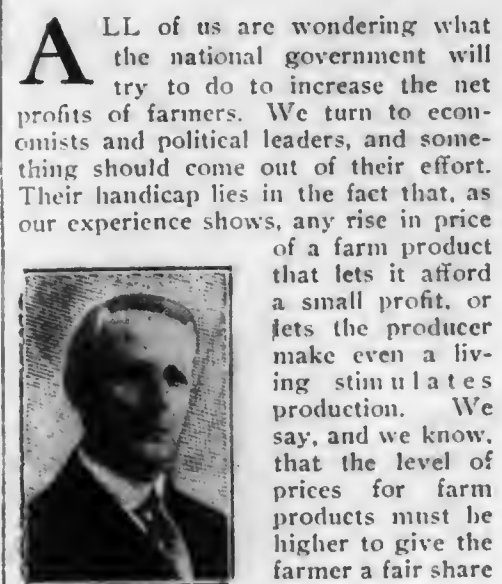
ON the first of the New Year, when they renew their licenses, many Pennsylvania motorists will be getting them free of cost, having saved from \$11.00 to \$16.00 by buying their Public Liability and Property Damage Insurance in the

M **MERCHANTS MUTUAL
CASUALTY COMPANY**
SECURITY Head Office: Buffalo, N. Y.

If you do not know our agent in your town, write our home office. Do it now, so you will be prepared to save money when License Day comes.

Farm Facts and Fancies

By ALVA AGEE



ALL of us are wondering what the national government will try to do to increase the net profits of farmers. We turn to economists and political leaders, and something should come out of their effort. Their handicap lies in the fact that, as our experience shows, any rise in price of a farm product that lets it afford a small profit, or lets the producer make even a living stimulates production. We say, and we know, that the level of prices for farm products must be higher to give the farmer a fair share of prosperity, but the level of prices for farm products must be higher to give the farmer a fair share of prosperity, but the level of prices for farm products must be higher to give the farmer a fair share of prosperity.

Finesness of Limestone

The Illinois Station gives us good data regarding the necessary finesness of limestone for use on land. Several experiments, one of which has been running sixteen years, supply the data. Many years are required to let the soil get full benefit of the lime in stone a quarter of an inch in diameter, such as is found in commercial screenings along with finer grades down to dust, but after four years plots, treated with stone containing only particles from one-tenth to one-eighth inch were giving as big yields as those that had fine limestone.

When applications are heavy, the relative cheap screenings give as good results as fine limestone, the dust meeting immediate need, and the coarser part coming into value later on.

Burnt lime in the sixteen-years experiment has shown the same value as the corresponding amount of limestone. The Station emphasizes the wisdom of making the initial application of limestone large enough to insure the results wanted, and letting subsequent applications be kept to the minimum as revealed by the growth of legumes and by soil tests.

Effect of Liming

The following paragraph from the annual report of the Illinois Station states truth applicable to most eastern land. It says: "Such marked results as can be reported from the use of limestone during the past rotation period are largely the result of its effect on legumes. As time goes on, cultivated soils in humid climate tend to get sour, or deficient in limestone. This is an unhealthy condition for many legumes. Under such conditions they frequently become sickly and die. Farmers throughout Illinois are finding it increasingly harder to get good stands of legumes, especially the deeper rooted biennial and perennial ones. On some farms the deeper rooted legumes refuse to grow at all. Since legumes are proven soil-builders, it is highly important that farmers take

steps to correct soil conditions adverse to them. This is best done through the use of limestone."

Feeding or Selling Crops

Our older readers remember when it was a certainty in their minds that the selling of the greater part of field crops from the farm was such bad practice that it could have only one outcome. Some of them have not changed their minds on that point. It was true in the day when fertilizers were little used and lime was not applied to make legumes grow, but there is good evidence today that soil fertility can be built up without manure.

The long-term experiments at several state experiment stations are conclusive on this point, and the experience of many practical farmers is in line with station results. I have seen unproductive farms made rich without any feeding on them. Limestone made the soil friendly to legumes, and commercial fertilizers provided the plant food for them. When the soil was supplied with organic matter, and had chemicals added, it had all it needed.

Maybe a majority of farms that do no livestock feeding lose in productiveness, but the fault does not lie necessarily in the system. It takes nerve to buy all that is needed to make land good when there is no manure, and supplies are skimmed by many. A farming community devoted to grain and grass is on safer ground when the rule is to feed on the farm. The owner of poor land needs livestock most because his soil cannot grow organic matter to meet its needs as freely as richer land can do. This road up is longer. If a young man was beginning to farm, carrying a mortgage, I doubt whether the strongest advocate of "clover and chemicals" would not consider him a better investment risk if he fed all the hay and the most of the grain produced.

"Joining the Exodus"

A reader, commenting on what has been said about dirt roads and on conditions in his county, says he sent a "terrible" letter to the road authorities of his state, and if he were younger he would stick where he is and carry on a fight for improved transportation facilities. "But," he says, "what's the use at my age! Life is too short and the country too wide, and I intend to join the exodus in the spring."

His comment on road conditions at his home has a rather wide application. He says: "Our dirt roads are the worst I have ever seen, no effort being made to maintain them in passable condition. Practically impassable roads are doing more to retard the development of this section than any other one factor. Many old homesteads are being abandoned, and the possibility of improvement appears remote."

Crowning the road-bed and carrying the water away from the sides make the basis for satisfactory use of the King road drag. It keeps ruts filled so that water from the next rain runs off. Its use in any community of the state is the concern of all the public because the public thrives on the prosperity of every section. The use of temporary means of keeping all roads passable is not wasteful, but it is a good investment. The use is wise and it is just. Public sentiment can secure it.

Employment

Last spring much was said about labor's unemployment, and any serious lack of employment quickly affects the demand for high-grade food. It now seems clear enough that the last half of this year will rate high in industrial activity, and if our markets do not take all the food that is produced the failure will not be due to labor's inability to buy. Our trouble is expanding acreage.

From the Week's News

Many implement manufacturers and dealers will stage interesting exhibits of farm machinery, conduct tractor schools, and during National Farm Equipment Week which is February 18-23, 1929.

Of the 127 new outbreaks of hog cholera in Maryland during November, 122 were apparently due to infected pork or garbage, table scraps, kitchen swill, etc., according to Inspector in Charge, I. K. Atkinson.

At the recent Third Annual Pacific International Holstein Sale held at Portland, Oregon, the 36 catalogued animals sold for an average of \$222.64 each. This is declared to be the most successful Holstein sale held in the Pacific Northwest during the past five or six years.

After 50 years of daily use "Old Main" is being abandoned this week by students of the Pennsylvania State College. The old building has been planned as unsafe and will be rebuilt of steel and concrete bearings. For 50 years "Old Main" housed all there was of the State; the west wing was opened to the first class in 1879.

"Leading Lady," an Erie county White Leghorn owned by Theodore A. Girard has produced 347 eggs in 1928. This is reported as a new record for the United States. A Canadian hen has a record of 348 eggs and an Australian has laid 353 eggs in a year. Beginning with a six-month-old pullet Leading Lady laid every day for 155 consecutive days. Her eggs average 24 ounces per dozen.

In 1913 the natural nitrate deposits of Chile furnished the peoples of the world with more than half of their supply of nitrogen for fertilizer, munitions, etc. It is now being taken from the air, and from other sources, according to H. R. Smalley of the National Fertilizer Association in his address before the meeting of the American Society of Fertilizers.

More than half of the world's corn is grown in the United States, the Department of Commerce announces after a survey of international trade. Although the United States produces less than one-tenth as much corn as the United States South American republic exports more corn than they country, and stands second in the world as corn producers. Corn exceeds wheat and value any other crop grown in the United States.

Many new outbreaks of tuberculosis in supposedly "clean" dairy herds have been traced to careless cleaning and disinfecting of the stable after the confined animals were removed. Help in fighting against trouble of this kind will be found in Farmers' Bulletin 954-F, "The Disinfection of Stables." Copies of this publication may be obtained free from the United States Department of Agriculture, Washington, D. C.

At milk being bought during November and December by dealers cooperating with the Inter-State Milk Producers' Association of Philadelphia is to be paid for at the full basic price, there being no surplus price in effect during these months. The Philadelphia price for three per cent milk in effect December 1 is \$3.21 per 100 pounds or 7.1 cents per quart. The butterfat differential is four cents per 100 pounds for each tenth point over two cents for each half tenth point above two.

Where does New York City get her milk and cream? Here are the receipts for one day, November 29th, as tabulated by the U. S. Bureau of Agricultural Economics. The figures indicate the number of 40-quart units received in the city and metropolitan area.

Origin	Milk	Cream
New York	67,493	2,570
New Jersey	4,085	42
Pennsylvania	12,035	245
Vermont	3,413	79
Connecticut	130	—
Massachusetts	387	—
Maryland	585	—
Indiana	—	421
Canada	—	16

Now YOU CAN OBTAIN GATOR-HIDE MULCH PAPER IN ANY QUANTITY



A 1,500 acre Hawaiian pineapple plantation completely covered with Mulch Paper. The white appearance of the paper is due to the fact that it was dusted with talc to prevent sticking in the rolls. This is unnecessary with the improved Gator-Hide.

This paper is completely covered by the Eckhart Patents under which the INTERNATIONAL PAPER COMPANY has the rights for production and sale in the thirty-seven states east of Colorado.



Two cucumber plants, both planted at the same time—but the one at the right under Mulch Paper. Note that the growth of the mulched plant more than doubles that of the unmulched plant.

What Gator-Hide Mulch Paper is— How it is used

Gator-Hide Mulch Paper, made by INTERNATIONAL PAPER COMPANY, the world's largest paper manufacturers, is one of the toughest, strongest, most durable papers made. It is impregnated, by a special process, with a particular grade of asphaltum.

Unrolled directly over the proposed plant beds and anchored by soil or other available material, Gator-Hide practically imprisons all moisture in the soil, and prevents its evaporation by the sun. Its black surface catches and retains the sun's heat, raises the soil's temperature, and checks cooling at night. This promotes continuous bacterial activity, liberating, night and day, nitrous food matter for the plants.

Planting is done through holes made in the paper, at usual spacing, or between successive strips of the paper. Thus while plenty of space is provided for the plant, no space is left for weed growth.

Plant under Gator-Hide this year

Thousands of planters will cover broad acres with it in 1929. Thousands will make one acre produce as much as from two to four produced before, and at a lower expenditure of time, effort and money for cultivation. Why not make up your mind now that you, too, are going to plant next spring under Gator-Hide Mulch Paper. If your local dealer cannot supply you write us direct using the coupon and mentioning the dealer's name.

The day of increased crops with decreased labor—the day of EARLIER and more profitable crops is here. Let the "Miracle of Mulch Paper" produce for you in 1929

IN the spring of 1928, we announced that the production of Gator-Hide Mulch Paper had begun but that, for a time, only four rolls would be sold to an individual. This restricted selling plan was adopted to permit the greatest possible number of people to experiment with the paper—to see for themselves just how the Mulch Paper stimulates plant growth, produces bigger and earlier crops, stifles weeds and eliminates much back-breaking labor.

And thousands did experiment. They found that Gator-Hide Mulch Paper increased the soil temperature, conserved the soil moisture, reduced cultivating to

an absolute minimum, and produced not only bigger but EARLIER crops. As these crops came to maturity, thousands of letters came to Mulch Paper Headquarters—all asking the same question: "Where can we get Gator-Hide Mulch Paper for large scale planting?"

Gator-Hide today is available in any quantity

Today, Gator-Hide Mulch Paper can be supplied in ANY quantity and, in many cases, through regular local distributors. Planters are assured, not only of a steady source of supply, but of expert advice from agricultural authorities, on all matters that concern its use.

INTERNATIONAL PAPER COMPANY

Mulch Paper Division: Room 1001, 105 East 41st St., New York City



IN TWO TYPES
Type A—For Annuals, primarily in field culture.
18" width—300 lineal yards to roll \$3.50
36" width—300 lineal yards to roll \$7.00
Type B—For Perennials in field culture and ALL garden work.
18" width—150 lineal yards to roll \$3.50
36" width—150 lineal yards to roll \$7.00
Special prices for larger quantities

Send coupon for Free Booklet



This booklet tells in a simple, interesting way the history, development and possibilities of Gator-Hide Mulch Paper. It is full of comparative photographs of Mulch-grown and non-Mulch-grown products. It portrays the REAL "Miracle of Mulch Paper."

INTERNATIONAL PAPER COMPANY
Mulch Paper Division, Room 1001
105 East 41st St., New York City
Please send your booklet, "The Miracle of Mulch Paper", and tell me where I can secure a supply of Gator-Hide Mulch Paper in this territory.
My dealer is:

My name:
My address:



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Volume 96, Issue No. 13..... Established 1877

HORTICULTURAL COUNCIL

A NATIONAL Horticultural Council has been formed, with headquarters at Chicago. Its purpose is to do for fruit and vegetable growers what the National Dairy Council is doing for dairymen or what the National Poultry Council is endeavoring to do for poultrymen. Whether the interests it seeks to serve will properly finance it remains to be seen. Fruit growers have not financed their organizations adequately so far, with exception of certain regional institutions. What will they do with this opportunity?

CORRECTION

LAST week the types made us say, in connection with the program of the Pennsylvania State Grange, "We sincerely hope that all scrapers in every farmers' organizations may be suspended by those who can get along with each other and devote their time and energy to the organization's work." The word "suspended" should have been "super-seded." That goes for all organizations everywhere.

TWO CERTAINTIES

THUS far only two certainties are visible in regard to federal legislation for agriculture. One of them is the creation of a federal farm board, which the President says is "to advise producers' associations in establishing central agencies or stabilization corporations to handle surpluses, to seek more economical means of merchandising, and to aid the producer in securing returns according to the quality of his product." The other certainty is that, whatever the duties of the board and the salaries provided by the law which creates it, a sufficient number of patriots will be found to man it.

TWO BULLS ATTACK

IN reporting attacks by gentle bulls we have always given the name and address of the victim, but here is a case in which this is impossible. For the victim himself reports with the request that we do not use his name. All we can do is to recite the facts of his private fracas with the bull and congratulate him on being able to write them. His gentle and trusted bull is fifteen months old. It attacked him suddenly and tossed him. He fell on its neck, to which he clung while he called for help. Fortunately help was at hand or "there might have been more than severe bruises to report."

December 5, Clarence Perry of Marion, Ohio, was at work in the field when he was

attacked by his bull. Carl Lamke, a neighbor, was plowing with a tractor in the next field. He saw the attack, hastily uncoupled the plow and charged the bull with his tractor. The bull fled and Perry was taken to the hospital with a broken nose, two fractured ribs and possible internal injuries. The tractor suffered no damage from its use as a "tank" in the battle with the bull. Tractors may be useful in such an emergency, but a faithful dog is more likely to be on the job.

HINDSIGHT

DURING the past summer a friend made a quiet study of the farmers of a Corn Belt community where many have gone broke since 1920. He found three classes of farmers in that community. Those of one class had gone in debt for high-priced land during the boom. Most of them had lost not only what they bought but what they had when they made the investment. Representatives of the second class had invested in non-agricultural properties or enterprises at inflated prices. Those who went in too deep had lost everything. The third class consists of men who had not gone in debt for costly land or other things. Every one of these still has his farm and is apparently in sound financial condition. Our friend concludes that speculation, not farming, has caused the trouble in that community and many others. Probably a correct diagnosis, but hindsight is usually nearer right than foresight.

DAIRY CONFIDENCE

CONFIDENCE was the keynote of several dairy meetings held in Chicago last week. The National Dairy Council, the National Dairy Association and the manufacturing organizations in their annual gatherings to review the past year's work and plan for the future were in general optimistic. Perhaps the chief reason for this was expressed by Dr. C. W. Larson, Director of the Dairy Council, when he pointed out that a tremendous increase in population has taken place in the last seven years with practically no increase in the number of cows in the country. However, it should not be forgotten that a tremendous increase in cow population is possible in sections not now dairy territory, such as the South, and will materialize when prices are stimulative, if not before. The National Dairy Association has grounds for optimism in the fact that the National Dairy Show is to have an adequate permanent home at last, in St. Louis, where the exposition can be developed in a manner suitable to represent the industry. In this development the Association plans a great educational enterprise and not merely a cattle show for rich breeders. It is such an enterprise already to a greater extent than generally recognized, for it has a round dozen departments and this fall every state except one actively participated in it. With these two organizations working to educate the public in the value of dairy products as food and to develop even greater efficiency in production the dairy industry should continue to flourish as it has in the past.

FUTURE FARMERS

THOSE who are doubtful about the future of farming in this great agricultural nation, those who are fretting about the frivolity of the rising generation, those who need the influence of youth on their shriveling souls, should have attended the International Livestock Exposition at Chicago last week. For there they would have seen 1,200 boys and girls, club workers and representatives of 600,000 others, fresh from the country and full of enthusiasm about its work and its life. Two of these club work-

ers did what no others have ever done and what would have been called impossible only a few years ago. They fed and showed two grand champion animals, which defeated the best that all the breeders, all the agricultural colleges, all the expert feeders of the continent could produce. Clarence Goecke, a twelve-year-old club boy of Marshall county, Ia., brought forward the grand champion steer which commanded at auction the highest price on record, \$7 a pound or \$8,050. Keith Collins, a fifteen-year-old club boy of the same county, produced the grand champion beef carcass which brought at auction \$6.75 a pound or \$4,873.50. It was a year of youth triumphant at the International, and that in the face of the fact that never before was competition so close or victory so difficult. We might fill pages with the lessons of the International but the outstanding one is that an industry which can produce such boys and girls, and so many of them, has a firm foundation for its future. We cannot despair of agriculture in the face of such facts.

POTATO PLANS

THE air is full of plans to handle the potato surplus and to prevent another like it. These plans range all the way from control of production to control of marketing, and none of them promises a solution of the problem because none of them can be put into effect. It might be much better for producers if they could control the area planted. But what agency can do it without interfering with the fundamental right of any producer to devote his land to whatever crop he regards as profitable? The same question applies to control of marketing. It might be better for producers if only high-grade potatoes could be shipped in a year of super-abundance. But what agency can or should have the right to prohibit any producer from marketing if he and the others concerned are willing to assume the risk of it? Something can be done by education in both production and marketing, but control of either is impossible without unreasonable interference with the right of men to carry on legitimate business in freedom. After considering all the proposed systems of dealing with the potato problem we must come back to the fact that the best remedy for a surplus is the commercial effect of that surplus. All others are merely palliatives of more or less value. This is not a pleasant remedy, but no other effective one has been devised.

WOOL AND MUTTON

THE Department of Agriculture presents, in its recent statement of the results of three years of research, some ideas in regard to wool production that veteran Merino breeders will find rather up-setting. For instance this research indicates that "good mutton conformation may have some advantages and substantially no disadvantages in efficient wool production." This with Rambouillet sheep, but if true with them why not with all breeds? The research indicates also that the influence of folds on the production and character of wool is not altogether as has been supposed. For according to the report "freedom from folds was correlated with greater length of staple, a trifle greater fineness of fiber, somewhat lighter unscoured fleece weights, a very slight reduction in clean-wool weights, considerably less grease and dirt, and less density." That absence of folds indicates less density of fleece is general experience, but how about fineness of fibre? Face covering was found to mean lighter fleeces with range sheep, probably because it interfered with grazing, and the results on this point are not important.

THE state of New Jersey appropriated \$300,000 to its Agricultural Experiment Station for the current year to be used in carrying on investigations into the problems facing the farmers of that state. Our own state of Pennsylvania with an agricultural industry as large as that of New Jersey and all the New England states and Delaware thrown in appropriated to the work of its agricultural experiment station for this current year less than half the amount New Jersey has. We might start a general harangue over the legislators, the governor and even our administrative officers of the station. But the fault lies not there so much as in the fact that Pennsylvania farmers have not been insistent upon a more extensive service in this field, a field that is rapidly growing in our states.

FORD OSWALD of New Tripoli, Pa., raises a timely question in a letter just received. "How," he asks, "does the United States Department of Agriculture justify itself in advertising meats through large posters hung in every post office of the country at a time when meats are selling high while it says in a word about potatoes on these posters at a time when people certainly could afford to eat more?"

A NUMBER of poultrymen are interested in gaining more information concerning the use of electric brooders. Here is the experience of W. C. Frantz of Lehigh county, Pa. On May 2nd, last, he installed an electric brooder under which he placed 200 chicks. In a similar house he placed 200 more chicks under a kerosene brooder. He ran both of them until June 15th. It cost him \$3.50 to operate the electric brooder and \$3.12 to operate the kerosene brooder. He says the electric brooder saves much time and is more accurate in keeping a constant temperature. But he would not recommend the use of the electric brooder in a house alone when outside temperatures drop below 40 degrees.

THE four state-wide swine breeders' associations have again joined to put on a big exhibit and sale of bred sows and gilts at the Harrisburg Show in January. From 20 to 25 individuals in each breed will be selected from the standpoint of quality and type. They will be secured chiefly from prominent herds in the state.

THE mushroom growers of southeastern Pennsylvania are requesting the federal government to raise the tariff rates on mushrooms. They are doing so because they are finding it more and more difficult to meet foreign competition, especially that coming from France. When the present rate of 45 per cent ad valorem was fixed the franc was worth 9 cents. Since then it has dropped to 3.95 cents. This exchange value favoring the French grower, coupled with low production costs because of cheap labor, is stimulating the mushroom industry in France and cutting in on American production. Evidence of this appears in the fact that importations of French mushrooms have been increasing 1,000,000 pounds annually for the past five years.

A STUDY of the October potato markets for the past three years leads one to conclude that prices of potatoes are not so much determined by the rate of shipment as they are by the general knowledge of a large existing surplus. During the month of October of this year carlot shipments of potatoes for the country amounted to 28,000 cars. October a year ago they were 38,333 cars and October two years ago they were 36,180 cars. Ten thousand carloads less were shipped this year than last year, yet the prices ruling this year are about half of those ruling a year ago. The reason for this condition goes back to the mental reaction of consumers and buyers of potatoes to general crop reports. We well remember three years ago when reports showed a short crop that housewives and buyers were clamoring to buy their supply for fear they would not get enough for their needs. Potatoes moved to market far faster than they do this fall when consumers know they need not worry about their later needs.

FOR the first time in six years an infection of potato wart has been found beyond the quarantine line surrounding the infected area in this state. The new infection was discovered during the past

Eastern Farm Comments

By MILES HORST

summer in Elder township, Cambria county. This disease, imported during the war period, centered in the Hazleton section of the hard coal regions. It was discovered before it had a chance to spread. Only immune varieties of potatoes were permitted to be planted in the infected area and the result of this action has been a gradual starving out of the disease.

FOURTEEN prominent potato growers of Lehigh county, Pa., spent a day in the wholesale potato yards at Philadelphia this week studying market conditions. They returned home convinced that it does not pay to ship ungraded stuff to this market. In fact most of them are going to ask for shipping point inspection, for they found that guaranteed quality stuff moved first and easiest.

"STOCKS of Pennsylvania tobacco held by manufacturers and dealers on Oct. 1, 1928," says the government review, "were practically the same as in the fall of 1927, but stocks of Ohio and Wisconsin in the hands of manufacturers and dealers were 18 and 13 per cent, respectively, smaller than in October, 1927, and were the smallest on

members. The local club leaders, club sponsors, county extension representatives and vocational school teachers were also present. We are planning to make this an annual event, for we all had such a good time."

LOOKING over the records for November sent in by boys and girls enrolled in Pennsylvania's junior cow clubs we find that three Indiana county members lead the group and their records rank high. Edward Wetzels' Jersey produced 622 pounds of butterfat during the month; Alta Yoss' Jersey 538 pounds and Charles Wetzels' Jersey 39.8 pounds.

New Jersey Notes

THAT strict quarantine regulations for some insect pests may serve their purpose and later become impractical was brought out during the discussion of the Japanese beetle and European corn borer in New Jersey at the New Jersey State Horticultural Society meeting at Atlantic City on Dec. 6.

Expense of quarantine work with the Japanese beetle becomes prohibitive, said Arthur Hieble, a River-ton fruit grower, when \$700,000 has been spent in quarantine work as compared to \$125,000 for research work. That the money spent on laboratory work is money well spent and that quarantine money should be spent on research and education was the opinion expressed by Mr. Richie and Mr. William Hookstra, Beverly.

Dr. T. J. Headlee, entomologist, N. J. Agricultural Experiment Station, said, "In my opinion the corn borer will in a few years be distributed throughout New Jersey. It has already entered in the eastern border and will without doubt enter the western border. The most satisfactory method of control is learning to live with the corn borer. We already know from the government laboratory work that destruction of remnants by everybody growing corn seems to hold the borer down to an uneconomic factor. I believe that community control in which this is involved is not practical for New Jersey. Some means should be found by which a farmer can protect his corn planting, no matter what his neighbor does."

THAT New Jersey Grangers are becoming "air minded" is shown by the following resolution adopted at the New Jersey State Grange meeting at Atlantic City, December 4-7: Be it resolved, that the New Jersey State Grange go on record as favoring in the near future a legislative aviation program, said program to sponsor a trunk line of landing fields between cities of importance such as from Jersey City to Camden, Camden to Atlantic City, Jersey City to Atlantic City via Long Branch, Asbury Park and intervening cities, said trunk lines to consist of a series of landing fields placed every five miles apart, said fields to be kept in grass, said grass to be property of owner, said fields to be at least ten acres in size with clear approaches, etc., details to be worked out by committee.

While it may be impossible to obtain ten-acre plots for landing fields every five miles, there is much cheap land along these routes that could well be put to this use. As traveling by air becomes more popular, the purchase of emergency landing field right-of-ways in the near future may become a big problem to farm owners.

THAT there will be an over-production of pears within the next ten years, that by 1935 the Northwest will be shipping 10 per cent of 5,000 cars less apples to eastern markets and that the stationary spray system will gradually supersede the portable sprayer in the East was predicted by Dr. S. W. Fletcher, Pennsylvania State College, before the New Jersey State Horticultural Society. These predictions were based on observations made during a summer's trip through the West and Northwest. He said practically all apple districts of the Pacific Coast, with the Yakima and Wenatchee Valleys excepted are "going back", and some were described as already "down and out."

G. W. H.



Laet's Magic Queen, Grand Champion Percheron Mare at the 1928 International Livestock Exposition Was Exhibited by F. B. Foster, Phoenixville, Pa.

record since October, 1919. The November crop estimates of the U. S. Department of Agriculture indicate that the 1928 tobacco crops of all the principal cigar leaf producing states will be larger than the crops of 1927, but the increase of production will not equal the shrinkage which has occurred in the leaf stocks of manufacturers and dealers during the past year. For this reason the apparent position of the Pennsylvania tobacco grower is at least as strong as it was a year ago."

THE School of Agriculture at the Pennsylvania State College will offer a short course to the institutional farmers of the state at the college January 2, 3 and 4. Superintendents, managers and operators of charitable, penal and educational institutions throughout the state, including county homes, are invited to attend. The course will feature poultry, but not to the exclusion of other lines of farm activity.

THOMAS FOX, a club boy in Clinton county, Pa., writes the following account of a county rally of club boys and girls present and past, held in the Salona Grange Hall at Mill Hall, November 23rd. "Most of the club members in the county were present at this meeting. So were their parents. Four-H club songs were sung with enthusiasm by all present. Games and contests were included in the program so as to get every one acquainted with every one else.

"Gerald Gammon, one of the Pennsylvania repre-

The 1928 International Livestock Exposition

THERE have been many changes in the livestock industry since the first International in 1900. In the early years of this century the three-year-old steer was a prominent figure in the show as well as in the business. Now the two-year-old is the longest age represented in the commercial or earlot show and the senior yearling the longest in individual classes. An example of the shift toward early maturity was shown this year—a five-year-old steer weighing 2,600 pounds, a three-year-old weighing 2,100 pounds and a long yearling weighing 1,150 pounds standing "side by side." Similar if not such extreme development is revealed in other kinds of livestock. The wether survives in the earlot or commercial classes but little is seen of him. The lamb dominates the show as it does the market. The old-time extreme weights have disappeared from the hog pen and the heavy weights are on the wane even if they do continue to produce champions. In 1900 and for a few years thereafter a great array of French and German coach horses filled the arena. They have long since disappeared, the carriage horse going into oblivion along with the carriage.

But these are only a few of the contrasts, not even the most important ones. For the early shows contained an open saloon while many of them were within a few steps of the arena. All are gone and the crowd is a sober one. In four days at the show we saw no drunkenness and little drinking was in evidence. There were no boys and girls clubs at the first International, but this year 1,200 youngsters, representing 600,000 others, enlivened the show and encouraged those who wonder about the future of agriculture. Perhaps these contrasts are sufficient, but should we not add that the awards at this show could be picked out of the air by those sufficiently interested to "tune in"? Who ever dreamed of such a thing when the century and the International were new?

Land Prices Reflect Optimism

The people are the most interesting exhibit, also the most informative, at any show which brings them together from all parts of the continent and men from other countries. They all have something of interest to impart. From them we tried to learn a little of conditions and tendencies, at least their opinions about them. Farmers of the Corn Belt express more encouragement than at any time since 1920. The financial storm is clearing but the list of wrecks is a long one. Confidence in farming is being expressed in more activity in land and improved prices for it. Most of the investors now are farmers who want to enlarge their operations or think current prices are below actual values. The campaign for farm relief, or the publicity attending it, has made outside investors shy about putting money into land. Other things look better to the uninformed than investments in an industry which is so often described as bankrupt and needing relief by legislation. Farms are selling throughout the Corn Belt, buyers appearing for anything that looks like a bargain. Forced sales still reveal the fact that loans on land were too liberal, for the total realized is sometimes below the face of the loan.

The cattle raising industry is in better position than at any earlier time in this decade. Its surplus has commanded good prices and prospects for the years just ahead appear to be rather cheerful. More calves have been sold by range producers this year than ever before, and a short supply of yearlings is anticipated next year. Probably we should not count too much on this, for more calves are being raised and kept in farm areas than a few years ago. The larger supply of feeder cattle this year was a surprise to those who expected a cattle shortage. A good many of the cattle taken out last summer are now coming back after a short feed, and receipts for the current winter are expected to be ample in view of the abundance of hogs. Both range and farm cattle raisers are investing in blood. The supply of pure-bred beef bulls is not excessive anywhere, judging by reports made by breeders. The sheep industry continues to prosper, though



Grand Champion at International Livestock Exposition

Pure-bred Hereford steer Dick and his feeder Clarence Goecke, State Center, Iowa, 12-year-old 4-H Club member. Clarence is the first club boy to produce a grand champion at the International. Dick won third at the Iowa State Fair, first and champion in the Junior or Club contest at the International, then the Grand Championship of the show. He was sold at auction to the J. C. Penny Co. for the record price of \$7 per pound, weighing 1,150 pounds. Besides the \$8,050 which the steer brought he earned about \$1,000 in prize money. The story of Dick and his owner appears on page 18.

prices for lambs and wool have suffered some reaction from the high levels of recent years. The range sheep industry is in good condition after several years of favorable wool and mutton markets. But the expansion which used to follow every such period is not so much in evidence this time. One reason is that financing sheep enterprises is not so easy as it was in the days when prices of stock and costs of operation were lower. The cost of maintaining a range flock is now so high that a farm flock can readily compete and there is a greater prospect for expansion in the latter than in the former. Yearling ewes are selling in Montana and other range territory at \$13 per cwt. or thereabouts. Little contracting of wool or lambs for next year is reported thus far.

The break in the hog market came early this fall, and the supply of marketable hogs has surprised those who credited the official estimates on this winter's marketing. Nobody is reporting any shortage of hogs, but the general opinion is that the bulk of the crop will be marketed earlier than last winter. The influence of direct marketing on prices is being discussed but without any conclusion, as the supply is sufficient to justify a comparatively low price level. The packers are determined to put away product at low prices, and some of them are under the necessity of avoiding risks so far as that is possible in a speculative business. Sales of breeding stock in the Corn Belt indicate confidence in the business but no boom is in evidence, and no sensational prices are recorded.

Many figures have been compiled to show that wheat-raising is a profitless enterprise, but this year the eastern part of the Corn Belt is missing its wheat money. Kansas, on the other hand, is in unusually good shape because it had a wheat crop and a corn crop the same year. Wheat appears to be like some other things, most appreciated when it is absent.

Many High Class Steers Shown

It is impossible to describe a show like the International so that those who cannot see it can get any conception of its greatness. In carlots of cattle all records were broken with 138 loads on exhibition. There was a rather surprising display of two-year-olds, doubtless the result of the premiums paid for heavy heaves. Yearling Angus again won the championship and reserve, and the champions of the two-year-old division were Angus. The feeder show consisted largely of calves and here again the Angus led. Up in the barns there was a great array of individual steers, including the champions at Kansas City, Omaha and Toronto, none of which got very close to the top. The Scotch judge Walter Biggar found the grand champion in a boy's calf club steer, a pure-bred Hereford which handled even better than he looked. Any one of a dozen steers which appeared in classes would have made an acceptable champion. No animal completely outshone his competitors this year, and there was room for much difference of opinion. We liked the Sui-A-Bar grade Shorthorn, which was reserve to the champion, but like everybody else were glad to see a boy's steer gain the highest honors.

Carlots of lambs were dominated by Southdowns as usual, but a Wisconsin feeder took the championship away from the Canadians who have been consistent winners in recent years. The Wisconsin lambs were Southdowns and heavier than their Canadian competitors. The grand champion wether of the show was a Southdown lamb bred and shown by the University of Kentucky, a very beautiful specimen in every respect.

In carlot of swine the Ballard Hampshires won again. The packer judges did not award this prize in accord with the packer campaign for a handy-weight meat hog—as the champions averaged 335 pounds. The championship among the individual barrows went to a Duroc-Jersey shown by Iowa Agricultural College, another heavy weight.

Greatest Horse Show in Decade

The breeders of Percherons and Belgians put up the greatest show of horses seen in a decade. More interest was evinced in draft horses than at any show in recent years, and more reports of colt clubs and community breeding enterprises. The horse appears to be gaining again as farm power, in the face of a great expansion in the use of other power. Some of the many educational displays should be duplicated at other winter shows and at State Fairs. The corn holer exhibit attracted a great deal of attention; but the alarm over its invasion of the Corn Belt has subsided, possibly too much. If it gets a hold in that region it will compel a great change in the method of handling the crop. The grain and forage exhibit was larger than usual. A wool show was staged for the first time, but it was hardly of International calibre.

Little discussion was heard of farm relief by legislation. There is much interest, however, in the readjustment of tariff schedules on agricultural products. There is likewise much interest in President Hoover's trip to South America, for it is anticipated that one of the tariff schedules to be revised is that on beef. The principal barrier to importation of cheap beef is not now the tariff but the presence of foot-and-mouth disease in South America. Beef producers are uneasy over this fact and the possibility that they cannot rely on such protection indefinitely. There is apparently little interest in the tariff on hides except among the larger cattle raisers. Most farmers appear to believe that a tariff on hides will cost them as much in one way as it will benefit them in another.

The breeders of the country, the men who have made possible the excellence shown in carlot and individual classes, should have credit for their share in the development of this great industry. For without their work the feeder's work would be in vain and the whole industry would lack its real foundation. This show does teach the value of blood to all who see it, and we should not forget to extend that lesson to those who merely read about it. None but well-bred animals can win, can command top prices, can properly reward those who raise them, or those who finish them. The big lesson of all exhibitions is that blood pays—and it pays all who are concerned in production or marketing.

Breed Societies Meet During International

Percheron Society of America

THE annual meeting of the Percheron Society of America was held at the Saddle and Sirlon Club during Exposition Week. The following officers were re-elected: W. H. Butler, Columbus, Ohio, president; W. S. Cress, White Hall, Ill., vice-president; C. N. Stanton, treasurer; Ellis McFarland, secretary; Elsie Hayden, chief clerk.

An increase in stallion and mare registrations was reported by Secretary Ellis McFarland, Iowa, Illinois. Kansas and Ohio leading in that order of number. During the past year membership increased nearly a fourth over the number taken in the previous year. The board has appropriated \$18,000 for advertising and publicity next year, about \$17,000 having been spent the last year.

National Belgian Draft Horse Association

THE annual meeting of the National Belgian Draft Horse Association was held at the Stock Yard Inn, Charles A. Wentz, Kirby, Ohio, was elected president, succeeding Fred B. Herbert. Fred H. Cook, Beaver, Pa., was elected vice-president, Secretary J. H. Conner, Jr., Wabash, Ind., was chosen to succeed himself, F. B. Holbert and Everett King, Chicago, were elected directors, the former succeeding Samuel Bell, the latter succeeding himself, C. G. Good, Iowa, and Earle Brown, Minnesota, were re-named to the executive committee.

The secretary reported a balance in treasury of more than \$20,000, exceeds by \$6,000 last year's balance. During the past year 173 new members were enrolled, 573 stallions and 1,690 mares were registered. The matter of advertising was discussed and referred to the directors.

International Livestock Exposition Association

ALL the officers of the International Livestock Exposition Association were re-elected at the annual meeting. A. G. Leonard, chairman of the board; John Clay, president; A. H. Siders, vice-president; J. W. Martin, president; O. T. Houck, treasurer; R. H. Heide, secretary-manager; Robert H. Hazlet, Eldorado, Kansas, was elected a director to fill the vacancy caused by the death of A. B. Cook of Indiana.

Aberdeen-Angus Association

THE Aberdeen-Angus Association at its annual meeting had one of the largest crowds ever to attend this event. Judge S. C. Fullerton, Miami, Okla., who has been president of the association for five years, presided. Oakleigh Thorne, owner of Briarcliffe Farm, Inc., Pine Plains, N. Y., was unanimously elected president for the coming year. Other officers included vice-president and E. B. Mullin, Crab Orchard, Neb., re-elected by the unanimous vote. The following officers were elected to the board of directors for a three-year term: S. C. Fullerton, Miami, Okla.; A. C. Johnston, Chicago, Ill.; H. L. Hartley, Duquoin, Minn.; J. F. McKenny, King City, Mo.; and Johnson Workman, Paradise, Kan.

Resolutions of respect were sent to the two oldest members of the association who, on account of illness, were unable to attend, C. E. Marvin, Paynes, Ky., and O. F. Bradford, Colfax, Mo.

The report of Secretary W. H. Tomlinson showed an increase of 2,450 in registrations and an increase of 892 in the show. One hundred and twenty-four new members were added to the association this year and 1,770 new breeders' names appeared on the lists this year. Iowa led the list of new breeders with 378 and Missouri was second with 210. Secretary Tomlinson reports that boys

Grand championships have been won at the following shows: Cleveland Fat Stock Show, National Western Show, Denver, Eastern States Exposition, Louisville Fat Stock Show, Ak-Sar-Ben Exposition, American Royal Livestock Show, South St. Paul Junior Show, Wichita Livestock Show, East St. Louis Show, Illinois State Fair, Nebraska State Fair, Kansas State Fair, Topeka; Virginia State Fair and Maryland State Fair.

Shorthorn Breeders' Association

AT the annual meeting of the American Shorthorn Breeders' Association a resolution was adopted instructing the board of directors to issue annual memberships to be offered to those who record Shorthorn cattle but who are not stockholders in the association. These annual memberships are to be sold at \$8 each and will entitle the holders thereof to enjoy the same rates for registration now enjoyed by members, but the memberships do not carry voting privileges.

E. D. Logsdon of Indianapolis, Ind., became the new president, H. E. Tener of Washingtonville, N. Y.; Thomas E. Wilson of Wilson, Ill., and Frank Schofield of Hillsboro, Tex., were the other directors succeeding themselves.

The financial report of the association for the fiscal year ending Oct. 31, 1928, showed a total income of \$176,454.51. Expenditures for fairs and shows of the last fiscal year amounted to \$60,400.35. Income over expenditures was \$2,529.07.

Chester White Breeders Meet

THE Chester White Breeders' Record Association held their annual meeting at the Sherman Hotel. The report of the treasurer showed the association to be in very good financial condition, with steady increase in business over preceding years. The association supports its future shows, the pig club, the ton litter and the open classes by spending over \$7,500 for these shows and the promotion of the Chester White breed.

The selection of the judges for leading shows for 1929 was discussed and selections made for the breeding classes and barrow shows. President Sherer called on several of the distant breeders and members to express their opinions as to the outlook, and every one was optimistic. Several stressed the fact that we should keep less hours for breeding purposes, consequently we would have better boars, thus getting about as much money as for many, and the breed would derive more improvement. Three directors, Messrs. Sherer, Tompkins and Rickert, retiring members of the board were re-elected.

American Duroc Association

THE American Duroc Association held its 40th annual meeting during the International. The officers were re-elected: W. J. Fitts, Tenn., president; Charles F. Hildholt, Ohio, vice-president; A. H. Sheets, Indiana, treasurer; Robert J. Evans, secretary. This will be Mr. Evans' 17th year as secretary. Dr. W. J. Fitts was elected director to succeed himself. Harry Dickinson, Houtfield, Ohio, was elected to succeed Howard Gerlach of Ohio.

Receipts for the year were reported to be about \$3,500 under last year's but the outlook for the future appears brighter on the basis of an increase in November business over last year.

Hampshire Swine Record Association

THE annual meeting of the Hampshire Swine Record Association was held at the Sherman Hotel. The following officers were elected to succeed themselves: C. D. Streeter, Keokuk, Iowa, president; Gene Harsel, Peoria, Ill., secretary. Mr. Streeter was re-elected a director for a three-year term, as were Dr. John H. Oliver, Keokuk, Ill., and

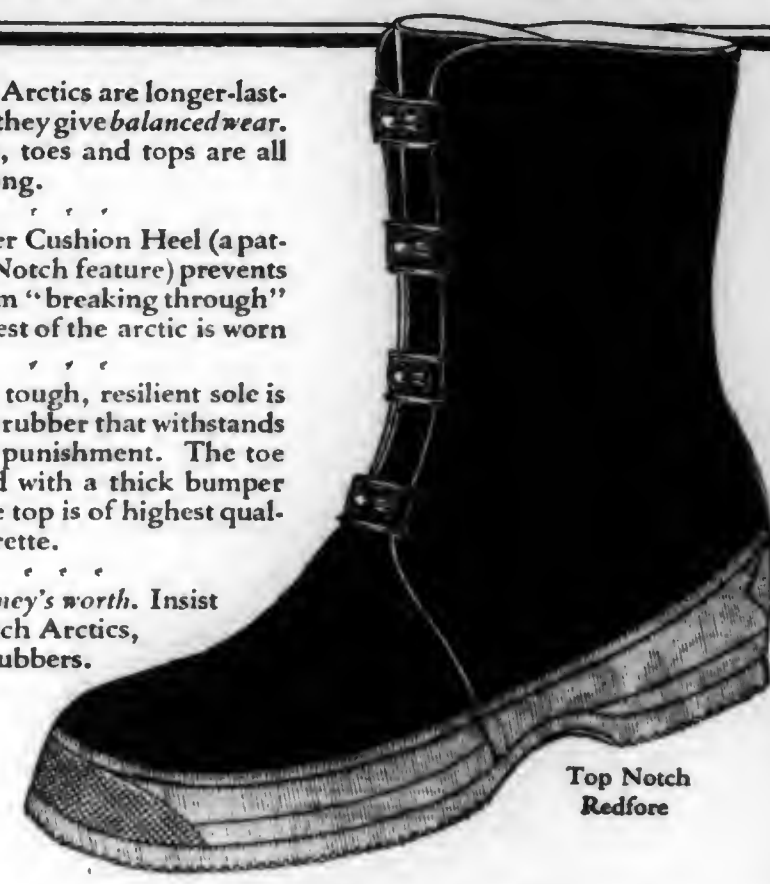
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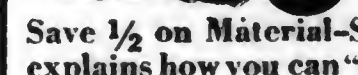
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Garden and Truck Crops

By GILBERT S. WATTS



BACK in the orchard where you can be reached with a hose, we have placed a large rectangular pit of horse manure, about four feet deep. This will be sprinkled as may be required to prevent "firing" and will be forked over a time or two in the next few weeks to insure even decomposition.

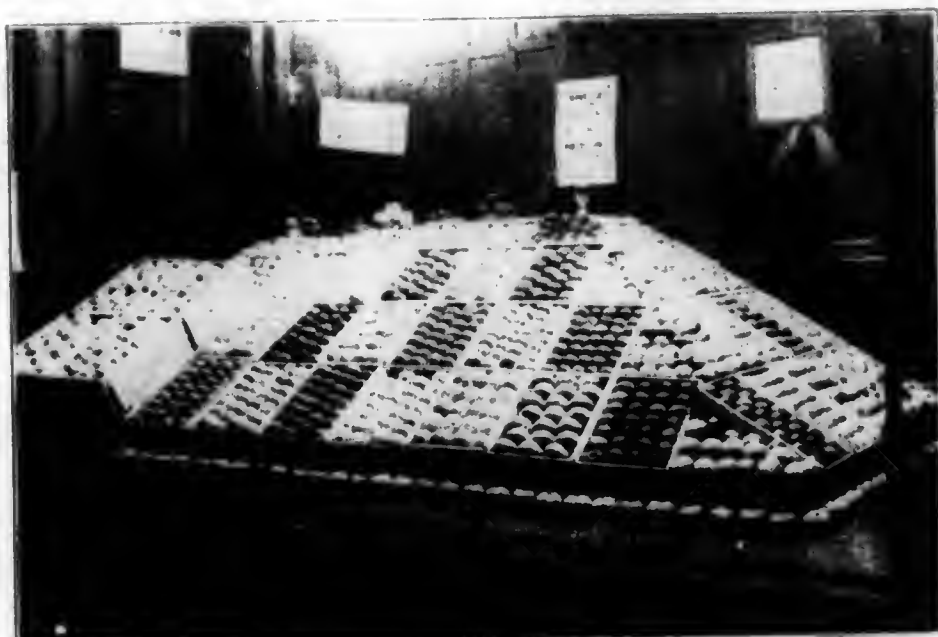
By the middle of February we should have a fine supply of ideal material to place in the bottoms of flats when transplanting seedlings or to use in mixing soil for plant growing. If a sufficient supply of well-rotted manure is not available somewhere around the farm, steps should be taken at once to provide a supply that will be ready when needed.

MARCH is the month when the bulk of seed orders are prepared but numbers of fore-handed growers already are giving attention to this very important phase of their operations. Thus they make sure of receiving their seed from the best and most popular stocks before these are exhausted. Danger of delay in planting time also is eliminated. It is not much of a job, and the expense is not great, to build a small mouse-proof wire cup-board from a one-quarter inch mesh hardware cloth. Seeds then may be ordered with confidence with safety.

IN only seven or eight weeks many gardeners will be making their first sowing of early cabbage seed in plant houses or hot beds. Time meanwhile will slip by rapidly. It is not too soon to make sure that facilities will be in readiness.

A FEW while things to make into plentiful or numerous as they are at present. If the ground in your garden is not frozen hard, or if it thaws some day during the winter, fifteen minutes or less will serve to lift a few clumps of rhubarb. In case they have not been frozen hard, or if it thaws some day during the winter, fifteen minutes or less will serve to lift a few clumps of rhubarb. In case they have not been frozen hard, or if it thaws some day during the winter, fifteen minutes or less will serve to lift a few clumps of rhubarb.

Grown and Packed in Lancaster County



Mr. C. B. Snyder of northern Lancaster county is proving that there is a good demand for first quality Pennsylvania apples graded and packed according to the highest standards. He receives high prices in years when ordinary apples are a drug on the market. This year he has shipped his fancy bushel boxes as far as Denver, Colorado. The photograph shows Mr.

you will be supplied with the most tender, succulent and mild rhubarb you ever ate.

A FEW weeks ago it was my pleasantly to be shown a most beautifully stocked farm cellar. There were potatoes, cabbage, turnips, squashes, apples, pears and canned goods without end. Out-side chickens, swine and cattle will help enable the wise people who filled this cellar to approach the old time ideal of a farm and family that could produce practically everything needed. But these folks are not old-fashioned in every way. Although they live of the very best, but with minimum outlay, from the abundantly and well-conserved products of farm, garden and orchard they have the latest of farm machinery, a tractor, a motor truck, two automobiles, plenty of reading matter and modern lights to read by. A radio is to be added at Christmas time. Perhaps an accountant could go over the books and show that the cash income on the investment in this establishment is not astonishing but the fact remains that these folks, and they are typical of a thrifty group, fare well better than the average, in the things of this world. Moreover, the semi-self contained system of farming and living that they have developed is a craft designed to afford maximum security when storms of economic unrest or unemployment arise.

Lettuce in Greenhouses

Write to the Pennsylvania Farmer for a list of greenhouse growers in the Lancaster county area.

THE usual plan is to set about 7x8 inches apart on ground beds. Temperatures ranging from 45 to 50 degrees at night or on cloudy days and 55 to 70 degrees on sunny days are commonly carried. It is customary to spade a heavy application of thoroughly rotted manure into the soil before planting and to water thoroughly before the plants are set, waiting of course till the soil is in proper condition before the actual work of setting is done. Practically the only variety of lettuce grown in greenhouses in Pennsylvania is Grand Rapids.

You might write the Pennsylvania Department of Agriculture, Harrisburg, Pa., and ask for General Bulletin No. 369, entitled "The Pennsylvania Vegetable Growing Industries."



for Outdoor fun

All outdoors is a playground when the snow lies over the fields and the ponds are covered with ice. It's not just for the kids either, for there are many mothers and fathers who still like to go skating.

Supply your family with enough outdoor winter sports equipment to make them want to get out and do things. It will mean better health, happier minds and strong, supple bodies—things that are worth more than any amount of money.

Come to our "Farm Service" Hardware Stores—where you can get the best values in skates, sleds, toboggans, skis, hockey sticks etc.

SPECIAL FOR DAD

In our sporting goods departments you will find everything you'll need for winter hunting and fishing. Make yourself at home at our stores—find them by the "tag" sign on the window.

Your "Farm Service" Hardware Men

Your Farm Service HARDWARE STORES

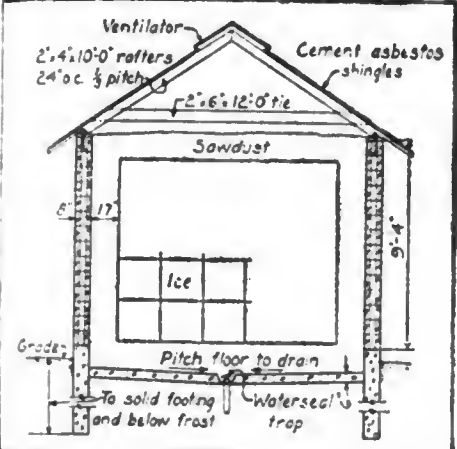


Concrete Ice House

By R. U. BLASINGAME

IN the November 3rd issue of the Pennsylvania Farmer I recommended a three-inch concrete floor for an ice house. The Portland Cement Association was kind enough to write that they recommend six inches of concrete for an ice house floor. I am glad to call our readers' attention to this correction, by an organization which has spent years of thorough investigations with regard to concrete for various farm structures.

Accompanying is an illustration showing the cross section of an ice house which was taken from one of the Association's booklets. This house will hold about 25 tons of ice. Its outside dimensions are 13 feet 4 inches by 14 feet 8 inches. The walls are constructed of 8 by 8 by 16 inch concrete blocks.



The Association also recommends 4 1/2 to 5 1/2 gallons of water to be used with each bag of cement when making concrete. It has been proved, beyond any doubt, that too much water in concrete weakens it. Concrete is made up of sand, stone, cement and water. The cement and water make a glue, so to speak, which holds the sand and stone in a solid mass. Too much water in the mixture is just the same as putting too much water in glue or paste. This proportion of water and cement has come to be known as "the water cement ratio."

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Spraying Paint

IN THE recent report "Electricity on the Farm and in Rural Communities," published by the Committee on the Relation of Electricity to Agriculture, 1120 Garland Building, Chicago, Illinois, the following information with regard to spraying paint is found:

"Seven times as much area can be covered by an experienced operator with a good gun as compared to the work done by a good painter with a brush. There is no more paint loss with modern guns than with hand brushes. By using a guard, trim can be added and the painting done so well in general that little retouching with the hand brush will be necessary.

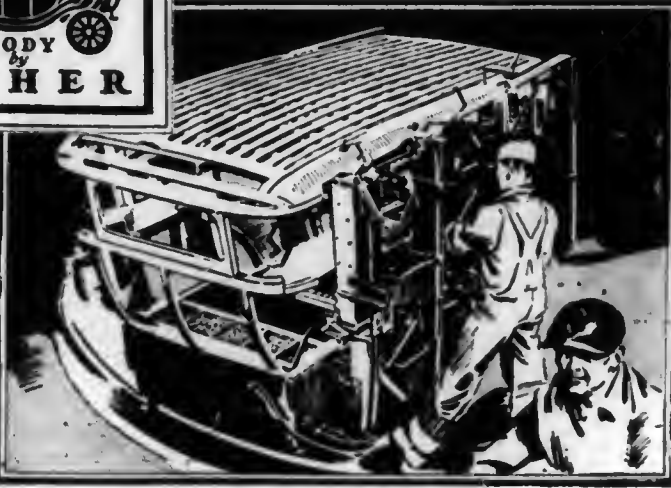
A good paint spraying machine in the hands of an experienced operator has a capacity of about 800 square feet of straight wall surface per hour.

Mr. Warren of Hurley, New York, has a home-made outfit consisting of a 4 cu. ft. air pump, 30 gallon air tank, 1 h. p. motor, 2 quart gun and 40 or 50 feet of air hose mounted on a portable truck, which has proved very satisfactory. By using a 1-32-inch nozzle and air at a pressure of 100 pounds he has also been able to remove white-wash easily.

The greatest deterrent to the more general use of paint-spraying machinery is undoubtedly its high first cost, a good machine costing from \$300 to \$450. Because of this high first cost and the fact that even beginners are able to paint more than one every three or four years on the average, and also because it requires experience to operate and properly care for a machine, their operation will likely be confined almost entirely to custom work.

There is now a small paint spraying outfit on the market which sells for \$75.

The great principle which FISHER first applied and which makes all Fisher Bodies equally good...



It is an interesting sight to watch a body framework rapidly take shape and come into being before one's eyes. This rapidity is due, of course, to Fisher standardized methods.

EVERY Fisher Body of a certain model is the same as every other Fisher Body of that particular model. It is the same in all its measurements—it is the same in superior quality. One of the most interesting examples of how Fisher standardizes its bodies is to be seen in the setting up of the framework. Fisher wood parts—all exactly alike for any given model—are placed in large jigs. The foundation of the body—the body sills or under body—is first assembled. Upon this is erected the upper structure. While

in the jig, under pressure, the framework is glued, screwed, bolted or braced, so that when it is finally removed from the jig, it is the strong, durable framework which helps to make the Fisher Body so satisfactory, so long wearing, so durable in the hardest kind of service. This framework is the very basis of the superior value of every Body by Fisher.

Body by FISHER

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Less than 1 1/2¢ PER RUNNING FOOT

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Write today for my New Catalog showing the biggest values ever offered on Farm Fence, Poultry Fence, Netting, Gates, Steel Posts, Barb Wire, Metal and Ready Roofing, Paint, Stoves, Separators, etc. The Brown Fence & Wire Co., Dept. 210, Cleveland, Ohio.

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E-Z POWER, portable, lasting, gives you 20 and more uses for your Ford. Develops 4 to 8 h.p. Cheaper to operate than stationary engine. Fits any model—no holes to drill. Automatic governor regulates engine speed—will not overheat. 15-DAY FREE TRIAL! FREE Illustrated folder shows its light, sturdy construction. WRITE TODAY—a post card will do. E-Z POWER MFG. CO., Box 284, ATCHISON, KANSAS.

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Pathfinder

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SKUNK

Conn-Mink-Foxes-Coyotes-Lynx Cats Badgers in Big Demand

When writing Advertisers please mention The Pennsylvania Farmer

In Enemy Country

By
James Willard Schultz

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Synopsis

White Calf, son of Many Swans, a Sun medicine man of the tribe, and Lone Woman, a Crow, are told by their father, Many Swans, to journey toward the South in quest of a new home. Lone Woman and White Calf are sorrowful at leaving and ask Many Swans to take them to one of the brother tribes, but he replies: "We go not to a camp of our brother tribes, but to a place that I have found. We are going to live with the Crows." But the Crows, of all enemy tribes, are the most to be feared and White Calf and his mother are apprehensive of the future. One may not question an Indian Sun priest and no persuasion can turn Many Swans from his decision. At Arrow River in a narrow cañon, they are overtaken and attacked by the enemy foot men, who are South Sea Islanders, and have made their camp in a grove of Elk River. White Calf and his mother are taking the watch while Many Swans sleeps. Now go on with the story.

sandbar of the other shore and looked about us; we found that we were but a little way above the mouth of Big Horn River. When we first pushed out from shore with the raft, the wolf swam beside me; and then, tiring, he had climbed up onto it and remained close to me. And now, when we landed and began carrying our things ashore, he ran round and round, and in his gladness sprang again and again to lick my face; and he followed me close when, with my father, I went up the valley to get our horses. By the time we returned with them, and got them saddled and packed, the night was more than half gone.

WE worked our way out through a large grove of cottonwoods, and struck up the valley of Big Horn River, almost at once frightening a large herd of buffalo, which ran off with loud thunder and rattle of hoofs. The wolf ran after them, paying no attention to my calls to him to come back. My mother said that I could not expect him to obey when he said that I could not expect him to return, but when in that he had left me, never to return, but when in a little while I happened to look back, there he was, close to my horse's heels. As we went on through the night, herd after herd of buffalo ran off at our approach, and always the wolf chased them a little way. I feared that I might be unable to teach him never to chase animals until told to do so.

When came the first faint light of day, my father led us into a large grove, and we unpacked close to the edge of the river. The numbers of buffalo in the valley were evidence, he said, that the Crows were encamped nowhere near, so he intended, during the day, to sleep and get, perhaps, a vision of what might be ahead of us. My mother and I, therefore, must by turns watch the country, and close-herd our horses in the grove, and by no means awaken him unless we should discover the approach of a war party or hunters from the Crow camp.

Said my mother: "Are we, then, to watch throughout the long day with increasing hunger? Not a mouthful remains of that elk meat."

"Hereabout are plenty of meat animals; our son has a bow and good arrows," he replied, and, with his sacred pipe outfit, he turned from us and went down the grove.

"Let us rest, sleep, for a time. I will then try to kill some meat," I proposed.

"No. Hunt now, then rest," my mother replied.

I handed her my gun, strung my bow, got out several arrows, and started up the grove, she and the wolf trailing close after me. Fresh tracks, fresh droppings of elk and deer were plentiful, and at every step I expected to see some of the animals. None appeared; we went on and on up the grove, neared its upper end, and I then discovered, fresh in a dusty game trail, the tracks of a powerful hunter who had gone up ahead of us, a big real bear. My mother shivered when I called her attention to them. She looked fearfully about, and whispered: "It is no wonder that there are no elk or deer in here! Come, let us turn back before the big sticky-mouth* sees us!"

I could see the end of the grove and the next green grass of a wide flat between it and the next grove upon our side of the river. I was quite sure that the real bear was out in the flat, or already in the other grove, and so went on, my mother fearfully following me, again and again begging that we turn back. We were soon standing in the shelter of the last of the trees and underbrush, and then she gave a sigh of relief as she leaned against me; for there in the open, halfway to the next grove, of

body as big as a buffalo, how foolish he was to work so hard for an animal whose little carcass would barely leave a taste in his great mouth! Furiously he dug the earth that he threw up with his paws was like a cloud above him. He ceased digging, backed from the hole that he had made, sat up on his haunches and looked about in every direction. He was of great width of body; of great height; with one blow of his great paw he could break the neck of a big bull buffalo, and yet he was digging out little squirrels for his morning meal. He got down upon all four feet and went on up the flat and into the grove above. We saw several deer and cow elk and calves run from it, the elk out for the breaks of the valley, the deer straight down toward us. They paused in the edge of the timber, not thirty steps from where we stood, and I shot an arrow at one of them; it glanced from the slender branches of a willow, and struck into the animal's left hind leg, and it went limping out into the flat, following its swift companions. Wolf ran after it, with long leaps soon overtook it and brought it to the ground, tore open its throat, and by the time we got to the animal it was dead. We let Wolf fill himself with meat and blood, and when he trotted off to the river, we took the tongue and liver and manifold, some ribs and loin meat, and hurried down to our camping-place to cook our morning meal. Wolf soon joined us, and, full though he was, he ate some of our broilings. Gladly we fed him; but for his help we should have had no morning meal.

My mother took the morning watch and the herding of our horses within the grove. Sun was well past the middle when she awakened me and said that she was worn out and must sleep. She had been having a lot of trouble with the horses; they were constantly attempting to go from the grove to graze in the open flat. I then went to the upper end of the grove, Wolf following me, and sat in a growth of sage at the edge of a cutbank dropping straight down into the river. Across, in a long, open bottom, a large herd of buffalo were grazing and slowly coming in to drink. Upon my side of the valley, and well beyond the grove into which the real bear had disappeared, was another large herd of buffalo; they had apparently already been in to water, and were now slowly climbing the slope to graze about upon the high plain. I watched them until the last of the stragglers went up over the rise and out of sight. Later on, the herd across from me came in to the river, drank and splashed about, and then lay down upon the wide and sandy shore, all but a few old cows that stood on watch, facing this way and that way, and chewing again the grass that they had eaten. When first the herd came in to water, Wolf closely eyed them, turning frequently to look at me, as though urging me to kill one of them. I told him that he was full up to his neck with good deer meat, and, if he must have more, he could just go to the carcass, close out upon the flat, and help himself. At that he turned round and round and lay down and slept.

I still felt sleepy, but dared not close my eyes. Sun traveled on and on down the line. I became more and more sleepy. The valley all up and down it as far as I could see was quiet enough. Well, why do I sleep for a short time? I had almost decided to do it, when Wolf, close by my side, suddenly awoke and raised his head, working his big ears as he stared up the valley; then he got up and kept looking forward, that way, the hair upon his back all fluffed out, his wet, black nose sniffing the wind, but apparently hearing no scent of that which was causing the noise which he was hearing. And what could I do? Listen as I would, with open mouth, I could hear nothing but the low murmur of the river, the faint chirping of some little birds in the grove behind him. Then suddenly came in sight the herd of buffalo that had gone out upon the plain: back down the slope they came as fast as they could run, down into the valley and across it, and were hidden from me by the projecting grove. But not for long; long lines of them swiftly climbing the other slope of the valley. I watched them until they topped it and went out of sight, and looked also for the cause of their flight: except in the mating season, buffalo run like that only from the presence of man.

Who had alarmed them? Crow hunters, or a war party sneaking across the plain? Neither appeared, and after a last careful look at the valley slope and the rim of the plain, I ran down into the grove, awoke my mother and then my father, and told them what I had seen. We all three went to

the upper edge of the grove and watched for the appearance of men, on horseback or afoot. Except for the herd of buffalo on the shore across from us, look as we would, we could not see a living thing. The valley, well above where the fleeing herd had crossed it, made a sharp bend and was hidden from us by the projecting point of plain. It was likely, my father said, that they who had frightened the buffalo were encamped up there, so it was best that, before we prepared to move on, he should go up there on discovery. Night soon came, and he started off, after ordering us to return to our camping-place, saddle and pack the horses, and quietly await his return.

It was so very dark in the timber that we had great difficulty in getting the horses together, and the saddles and packs upon them. Last of all, my mother very carefully put on the pack containing my father's sacred buffalo medicine outfit, the while I held the horse, one of much spirit. Then, when all were packed and tethered to the trees and brush, we sat down in their midst, and Wolf came and lay at my side, thrusting his head into my lap, and I petted him. He was young, he had seen but one winter, and he soon slept, I remained very quiet, so as not to awaken him. My mother leaned against me and also slept.

After what seemed to me a very long time, Wolf suddenly raised his head, listened to something that he heard, then sprang to his feet and backed against me. I awoke my mother, whispered to her that Wolf was alarmed. We listened, but at first heard nothing; then came to our ears faint sound of foot-steps, soft swishing of brush, and Wolf ceased pressing against me and again lay down.

Then my father called, "Where are you?"

"Here! Here!" we quickly answered, and sprang up to meet him.

"The saddles and the packs are all on!" he asked.

"All of them."

"Good. A little way up past the bend our long trail ends; the Crows are there encamped, hundreds of lodges of them, at the upper end of a long, wide, level-bottom of the valley. Come, let us go on to them without delay."

"Oh, no! No! Oh, my man! As you love our son, as you love me, I beg you now, and for the last time, before it is too late, to turn and lead us back to our own people, in our own country!" my mother cried.

"Woman, I know what I am doing; my visions have all been good. Fear not the Crows; they will not harm us. Come, we go to them," he answered shortly.

There was naught for us to do but obey him. So sick with fear that we trembled, we untethered the horses, put up their ropes, got into the saddle, and trailed after him with the band.

that she looked at me, pleadingly, and I knew what she meant: she was afraid to go to the river. I took the bucket, a large one of yellow metal that we had bought from the North traders, and went out and filled it, and when I returned, she had the fire built and meat broiling before it. My father ate a lot of it, but my mother and I were so fearful of our position, of what might happen to us with the coming of day, that we made but a pretense of eating. Wolf came in under the door flap and I gave him my portion of the broilings. He got up on my couch and lay down contentedly.

LOOKING up through the smoke hole, I saw the sky changing from black to blue; day had come. I started to go outside. I wanted to watch the Crow camp, see what the enemy would do when they discovered our lodge, set up so near them while they slept. My father signed to me to return to my couch, to remain seated. He got out his small pipe, filled and lighted it, smoked to Sun, Earth Mother, and the four world directions. And then, beginning with the song of the buffalo bulls, he sang, one after another, songs of his sacred medicine. He kept on singing them the while Sun appeared and turned the skin of our lodge to bright red, and then yellow. Sad, silent, bent over in our seats, my mother and I listened for footsteps, though we knew we could hear nothing of the kind above that loud singing. Fearfully we watched the curtain of the doorway, expecting it to be thrust aside by the enemy, eager to make an end of us.

As we learned later on in the Crow camp, that morning the first one to arise and step outside was a woman occupant of a lodge of its outer circle. She could hardly believe her eyes when she discovered our lodge out in the flat where no lodge had been the night before. She rubbed her eyes and looked again, made sure that she was not still asleep and dreaming, and called her man to join her. He, too, rubbed his eyes when he saw that to which she pointed, the lone lodge out in the flat. He stared at it. "Not one of our lodges; it is a lodge of some other tribe of the plains," he said to her, and shouted to the people to awake: to come out and see what had been set up near them during the night. Out they came from their lodges, came running from all parts of the camp, a multitude of people, and stared at our lodge and talked excitedly about it; and many of the leading men hurried to join their head chief, Dusty Bull, to learn what he would say.

By that time day had fully come, and a man newly arrived in the front of the crowd cried out: "See, you warriors, the big black painting of a buffalo on the side of that lodge? Well, I can tell you about it. I have twice seen it, first on North Big River, and again where Point-of-Rocks River empties into South Big River: it is a lodge of the greatest of all enemy tribes, the Painted Checks."

The second time I saw it, I took two fast buffalo runners that were tied before its doorway."

"Hail! Hail! A lodge of that enemy tribe!" some one shouted. "Come, my friends, let us kill these within it!"

"Yes! Yes! Let us kill them! At once kill them! Back to your lodges for your weapons, my friends! Be quick about it," cried another.

"No! No!" shouted Dusty Bull, as he turned about and faced the crowd. "Stand where you are! Hear me; this I say: Brave, very brave, is the owner of that Painted Checks lodge. He comes to us, not as an enemy, but with friendly intent, and, as you

crimes. But with her idle mind and hand, ambition making no demand, she'd pine and see in blue; she'd simply sit, and sit, and sit, until one day she lost her wit; a sorry tale, but true! And then we buried her one day, quite prematurely. I would have ever really tried to keep her mind well occupied, he living yet, you bet!"

Aunt Spiff has no time on her hands to watch the wasting of the sands, she's youthful in her thought; her mind is keen and full of pep, there's good elastic in her step, she's Johnny on the spot! I think she'll live for ninety years, hold Father Time in grim arrears and make him keep his place! Aunt Spiff is busy every day with her of blue and quilts of gray; smiles flit across her face!—J. E. T.

My Aunt Spondella used to sit in semi-sick and lectric fit, and say, "Oh my, oh my, this world is such a gloomy place for us old people, out of place, there's naught to do but die!" She'd sit unoccupied for hours, exhausting all her aging powers with grumbling at the times; she'd tell how boys were seeing red and how all girls were raising Ned; she'd talk of modern

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that she looked at me, pleadingly, and I knew what she meant: she was afraid to go to the river. I took the bucket, a large one of yellow metal that we had bought from the North traders, and went out and filled it, and when I returned, she had the fire built and meat broiling before it. My father ate a lot of it, but my mother and I were so fearful of our position, of what might happen to us with the coming of day, that we made but a pretense of eating. Wolf came in under the door flap and I gave him my portion of the broilings. He got up on my couch and lay down contentedly.

LOOKING up through the smoke hole, I saw the sky changing from black to blue; day had come. I started to go outside. I wanted to watch the Crow camp, see what the enemy would do when they discovered our lodge, set up so near them while they slept. My father signed to me to return to my couch, to remain seated. He got out his small pipe, filled and lighted it, smoked to Sun, Earth Mother, and the four world directions. And then, beginning with the song of the buffalo bulls, he sang, one after another, songs of his sacred medicine. He kept on singing them the while Sun appeared and turned the skin of our lodge to bright red, and then yellow. Sad, silent, bent over in our seats, my mother and I listened for footsteps, though we knew we could hear nothing of the kind above that loud singing. Fearfully we watched the curtain of the doorway, expecting it to be thrust aside by the enemy, eager to make an end of us.

As we learned later on in the Crow camp, that morning the first one to arise and step outside was a woman occupant of a lodge of its outer circle. She could hardly believe her eyes when she discovered our lodge out in the flat where no lodge had been the night before. She rubbed her eyes and looked again, made sure that she was not still asleep and dreaming, and called her man to join her. He, too, rubbed his eyes when he saw that to which she pointed, the lone lodge out in the flat. He stared at it. "Not one of our lodges; it is a lodge of some other tribe of the plains," he said to her, and shouted to the people to awake: to come out and see what had been set up near them during the night. Out they came from their lodges, came running from all parts of the camp, a multitude of people, and stared at our lodge and talked excitedly about it; and many of the leading men hurried to join their head chief, Dusty Bull, to learn what he would say.

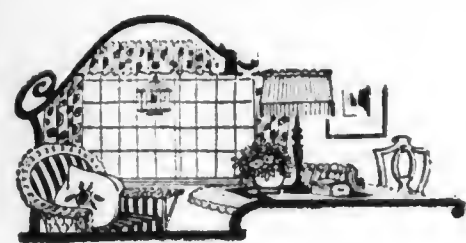
By that time day had fully come, and a man newly arrived in the front of the crowd cried out: "See, you warriors, the big black painting of a buffalo on the side of that lodge? Well, I can tell you about it. I have twice seen it, first on North Big River, and again where Point-of-Rocks River empties into South Big River: it is a lodge of the greatest of all enemy tribes, the Painted Checks." The second time I saw it, I took two fast buffalo runners that were tied before its doorway."

"Hail! Hail! A lodge of that enemy tribe!" some one shouted. "Come, my friends, let us kill these within it!"

"Yes! Yes! Let us kill them! At once kill them! Back to your lodges for your weapons, my friends! Be quick about it," cried another.

"No! No!" shouted Dusty Bull, as he turned about and faced the crowd. "Stand where you are! Hear me; this I say: Brave, very brave, is the owner of that Painted Checks lodge. He comes to us, not as an enemy, but with friendly intent, and, as you

crimes. But with her idle mind and hand, ambition making no demand, she'd pine and see in blue; she'd simply sit, and sit, and sit, until one day she lost her wit; a sorry tale,



The Farm Home



Our Problem

OUR little girl is an only child. A fact that has made our relatives and friends ever that she cannot escape being spoiled. I admit we have had qualms about it ourselves.

Because the problem is a real one in so many homes, I am going to tell you how we have handled it, thus far.

In the first place we had added difficulties because we were so situated that she had barely a playmate before she was three years old. There were no children with whom to share her toys. It had to be played with her, or herself, or else teach her to invent playmates—both of which we did. Had she a new doll, Daddy must share in the pleasure of trying it out. Had she planned a tea-party with her new wa-set, Mother must share the ambience. Urged just once, the idea proved its own worth. Next time she invited us because "it's more fun." She had to learn, however, that only at certain times were we available for play. When we were not, she soon learned to invent playmates for herself. To an imaginary Molly she would say, "You may play with my blocks, Molly."

Sharing Playthings

Real playmates created a new difficulty. They proved none too gentle with her favorite doll, or her new wa-set. We heard, "No, you shan't play with that," quite frequently. One of the aforesaid relatives would lift an eyebrow and say, "I told you so." However, we felt inclined to linger a bit, and would invariably hear something like this: "But you can have these blocks, or this ball." One does not lend one's best china bowl to the neighbor who comes borrowing, if it is known that bowls have a way of being broken in that home; any porcelain bowl does just as well.

Christmas time always presented a problem. From these same relatives and friends came toys enough for half a dozen children. Just once we suggested a Christmas basket of toys from her own stock for poor little motherless Peggy; now, she becomes lavish in her desire to make some one happy at Christmas time. After the holiday, she invites her friends in to share in the play with the new toys.

Setting an Example

Being, of necessity, usually included when we went out together, or alone, she came to expect it. We reminded her that yesterday she had a tea-party with little friends which was her pleasure; now, Mother or Daddy are going out for their pleasure.

Setting an example gave, as always, infallible results. She would say, "Mother, you gave Daddy the very nicest," or, "O, Daddy, why did you give Mother the big chair?" However, next day, perhaps, she would try her own hand at giving up the best.

Her Grandma never failed, when they played at games together, to manage in such a way that the child should always win. "I hate to disappoint her," she would say. Her father and I have always let the game take its natural course, and she has been expected to abide by the outcome, cheerfully. Sportsmanship may be developed earlier than most of us suspect.

I leave it to you, whether we are having a reasonable degree of success. Today, at six and one-half years, she ran to me and, in all seriousness, said: "Mother, you took me for a sled ride today, now you go and have your pleasure, and I'll wash the dishes." She did it, too!—National Kindergarten Association, N. Y. City.



Mrs. DeVoe of Worcester county, Mass., earned the improvements shown in this kitchen picture from the sale of raspberries. Note the convenient drop-table just back of Mrs. DeVoe while you are studying her ironing conveniences. We wish she had a high stool and were seated like the thriftiest women are now-a-days.

Four to Five in the Afternoon

By HILDA RICHMOND

A MOTHER of four children attributes much of her success to the fact that she made it the rule of her life to be at home at four o'clock every afternoon to see that the children came home from school promptly, and that they had their regular routine of work and play until bedtime. She was a club member and a social worker, through whose influence the various meetings closed early to oblige mothers. If gatherings held over time she quietly slipped out and got home before the children arrived.

Children who know that their mother will not be in the house when they arrive often play along the way and get into mischief. But where the careful parent is on hand with a warm house, a little lunch to tide the children over until the evening meal, a sympathetic ear to listen to all that went on at school, and enough patience and discipline to get the youngsters started on their chores, everything moves smoothly. My own earliest recollections cluster around the good warm sitting room where we thawed out, ate, changed our school clothes for work garments, and then set out to gather eggs, bring in kindling and do the light tasks while Mother got the good hot supper which found us ravenous.

Contagion of Disorder

If the house is cold, and the supper a nondescript affair of left overs, hastily warmed; if mother is flying about trying to do two things at once, the children soon catch the contagion of disorder. Where things move with the clock and a nice hot supper is served on time, discipline is an easy matter.

I am thankful to this day that when four o'clock comes I cling to the habit of starting supper preparations, tidying

up the living room a bit and putting away any special work like sewing, or ironing. Children like to tell their little troubles and triumphs to a being who can hear, not one who is racing the sewing machine to catch the waning light. A littered-up living room is not conducive to happiness and order. The children are at home so few waking hours that they should be made most attractive and helpful with light work or play, and pleasant conversation.

In the winter everything is hurr-scurrey on dark mornings to get the children off, so the winter evening is about the mother's only chance with her flock. To dissipate, or fail to appreciate, the importance of that hour of daylight after school is to miss a great opportunity in the character building of our boys and girls.

Timely Tips

Always open the bottom of asparagus tins, so that the tips will not be crushed in removing from the can.

While it is best to pare potatoes immediately before cooking, it is sometimes necessary to pare them an hour or so ahead of time. When this is necessary, always use the water in which the potatoes have been soaked to cook them in. Pour it off the potatoes, heat it, and then put the potatoes in. This retains much of the valuable mineral salts, providing the water is cooked down. If there is a little water left, it may be used in making gravy, or soups, or to add to canned soups. When added to canned soups, potato water gives them an improved flavor. Marion C. Brackin.

Listening In

By Gertrude S. Stewart

EVERY Monday evening at seven o'clock, Station WBAK broadcasts an educational and inspiring program. On December 17, Penn's Woods will be the subject of Charles E. Dor, worth's address. December 24, Bishop James H. Darling will speak to radio listeners on "The Spirit of Christmas." On December 30, Frederic A. Goddard will trace our steps in an address on "Looking Backward Over 1928."

These programs are arranged by the Pennsylvania State Library and Museum and are indeed worthy of being marked on your calendars.

You'll Wish to Blow Them Forever

IF YOUR nerves get ready to snap with the customary rush that sweeps upon many of us about the middle of December, just try blowing a few bubbles with the children and you'll have happy relief.

Shave an inch cube of strong brown soap into one pint of warm water. When it has dissolved, add one tablespoonful of gum arabic. Stir until melted, then add one teaspoonful glycerine and a quart of cold water.

If you have any coloring materials at hand separate the soapy mixture into as many bowls as you want colors and add carrot juice for yellow, beet or berry juice for red. Tiny bits of gay-colored crepe paper gives all sorts of color possibilities.

These color effects are made brilliant by the use of the strong soap and the glycerine. The gum arabic makes the bubbles so elastic and tough that you can roll them around on the table or floor for several minutes. Keep this recipe in your scrap book and whenever you want an hour of real fun, just blow bubbles.

How Did We Live Without It?

By Mrs. E. M. Anderson

WE'VE just been connected with Niagara power, and to have electricity does seem almost too good to be true. A neighbor told me a while ago, "You'll soon wonder how you ever lived without electricity," and a true sentence has never been spoken. Even just electric lights help everything along.

Any kind of work can now be done just as conveniently after night overtakes us as during the daylight. I'm constantly being surprised at how quickly I finish all sorts of jobs since I neither carry a lamp nor fumble around in the dark. I can do my ironing now in less than half the time I formerly needed, and it is a better looking job I do, too.

It was a bit shocking right at first to see how much dust and dirt was exposed in what had formerly been shadowy corners. Heretofore we did not even notice it. But it's real fun to keep things more spick and span.

At our neighborly club the other day we were discussing modern improvements, and all agreed that good lights come first. Second place was not decided, but both furnace heat and running water plus bathroom claimed the position. Radio was given fourth place. How fortunate the country homes that can boast of enjoying all four of these splendid comforts.



Partners to make your washing easier.

There's a partnership in Fels-Naptha—unusually good soap and plenty of dirt-loosening naphtha, working hand-in-hand to give extra help with your wash. Two safe, active cleaners combined in one golden bar by the special Fels-Naptha process. Two cleaners that work together, dissolving the dirt and washing it away without hard rubbing. Try it in tub or machine—in hot, cool or lukewarm water or when your clothes are boiled—and learn for yourself that, for extra help...

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7301 Penn Avenue Pittsburgh, Pa.

Long Live the Family Traditions

WE HAVE a delightful custom at our house for observing all the birthdays and holidays. One of the favorites at Yuletide is the making of gingerbread boys. They are as much a part of Christmas with us as is the Christmas tree. I make them two weeks before Christmas using the following recipe:

One cupful sugar, two cupfuls molasses, one cupful shortening, two teaspoonfuls salt, one and one-half cupfuls water, four teaspoonfuls soda, two teaspoonfuls ginger, four cupfuls flour.

If you desire soft cakes, use the water cold. If you want them crisp, use boiling water. I use the latter. Blend the sugar and shortening. Add the molasses. Then add alternately the water and all the dry ingredients sifted together. Add enough more flour to make them roll easily. Roll to one-fourth inch thickness. Cut them the shape of boys, using a sharp knife. I like them four inches long, round body, hands in pockets, short legs, high hat.

Small raisins or round end of clove stems forming the nose and mouth. This is all the decorating done before baking.

"Oh, boy! Mom's at the gingerbread boys," are the ecstatic squeals of returning school children. Grumpy hands are scrubbed with real Christmas zeal, and soon decorators are busy making fancy colored coats and hats for the fragrant cakes. Real baby ribbon bows are used for ties. Confectioner's icing is tinted yellow with egg yolk, brown with chocolate, red and pink with vegetable coloring. Buttons of raisins or gay colored candy are placed in the soft icing.

The children take extra pains in this fun for they are always sent as gifts to their little friends. The broken ones are their immediate feast.

Mrs. J. P. Nawrot.

Children's Spending Money

"SHOULD children earn their spending money?" asks "Emily." I think so, because few farmers are able to give them an allowance. Where there are a number of children the older ones come first in attendance at social affairs and in school work. So for special tasks I always thought they ought to be paid something, if ever so small a sum—it is money earned and means a lot to a child.

My neighbor's daughter picked berries for me last summer and earned \$1.10 and it was her first money earned away from home. She was so proud of it she put it in the bank without being told. Picking up potatoes, pulling weeds or gathering apples are extras and they are hard tasks for children, but if a nickel or a dime is in view the task becomes lighter. Most children are ready to help with ordinary duties pertaining to the home.

One boy I know kept three lawns mowed during the summer, thereby earning 75 cents per week. He also ran errands for the neighbors. Other extras are watching the cows when they are turned in corn fields or meadows.

A girl in a village stays one evening a week with the children of a neighbor and is paid a small sum.

Cleaning up the rubbish around the home, the cellar, the wood house or barn are all special tasks and children will go about it cheerfully if paid a small sum of money.

One mother keeps a mental record of her boy and girl as to how much and how well they perform the extras, then at Christmas time she takes them with her, gives them some money and turns them loose in the five and ten cent store, or at Hallowe'en, and what a glorious time they have deciding what to buy.

ARENA A. KERN.



Fashions

The sensible patterns shown on this page are becoming more and more popular with farm folks, as the directions are easy to follow, orders are promptly filled and the price, 15 cents, postpaid, or two for 25 cents, is less than half of the usual store price. Order by number and state size in all cases. Address Pattern Department, Pennsylvania Farmer, Pittsburgh, Pa.

No. 3328—Something New. This style is designed in sizes small, medium and large. The medium size requires 1½ yards of 36-inch material with 12 yards of binding.

No. 2572—Chic and Conservative. This style is designed for sizes 16, 18 years, 34, 36, 40, 42 and 44 inches bust measure. Size 36 requires 3 yards of 40-inch material with ¾ yard of 36-inch contrasting.

No. 3409—Modish Blouse. This style is designed for sizes 16, 18 years, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 1½ yards of 40-inch material.

Have You Tried These?

Vegetable Soup Canned

1 pk. ripe tomatoes, 1 tablespoonful celery peeled and seeds taken out. 2 qts. diced carrots. 12 ears corn. 1 tablespoonful pepper. 12 large onions. 1 cupful coarse salt. 2 heads cabbage. 5 qts. water. 3 or 4 green peppers. 1 small red pepper.

After it starts to boil cook one hour. Put in cans and seal while hot. Fine for winter if you have your soup stock. If not, take ½ lb. hamburger, add water and soup and cook ½ hour.

MRS. A. S. KENT.

Grape and Pear Butter

Take ripe blue grapes, the riper the better. Take from stem and look over carefully. Wash and cook in just enough water to come up to the top of fruit. Drain as for jelly. Thicken the grape juice with pears and sweeten to suit taste. Cook until thick as wanted. There were no weights or measures given with this, but it is excellent.

I am hoping for some recipes for a covered glass baking dish.

MRS. A. A.

Everlasting Rolls

1 cake yeast. 23 cupfuls lard. 4 cupfuls water. 1 tablespoonful salt. 1 potato. 1 egg. 1 cupful sugar. Enough flour to stiffen.

Let stand over night. In morning take off what you need and let rise in a warm place until another time as large as when you kneaded them and bake in a medium oven. The remaining dough set in the ice box until needed again. This recipe makes about five dozen rolls.

KATHERINE LYALL.

Will you please print a recipe for the spicing and canning of whole crab apples?

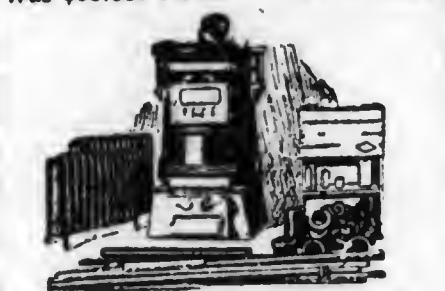
RUTH GOLUB.

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Because of this paper have so heartily endorsed the sale we have run for the past two months that through volume business we are enabled to continue the sale for another month. DEDUCT 10% FROM THE CATALOG PRICE YOURS.



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Santa Claus demands added service of New York Central Men

THE Christmas holidays are rush days for the thousands of New York Central men who will be busy at their posts while the world makes merry.

Increased travel and the heavy movement of goods and gifts place added responsibilities on their shoulders. On trains that are re-uniting families for the Christmas feast, and in busy ticket offices, in yards and signal towers, and out along the right of way, every New York Central man is alert to his duty.

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ALWAYS mention Pennsylvania Farmer when writing to our advertisers. This will insure you prompt attention and service.

The Making of a Grand Champion

A 12-year-old 4-11 Club boy showed the grand champion steer at this year's International Livestock Exposition (See Page 8). The following account of the raising and the crowning of the champion is taken from the Chicago Daily News' Journal.—The Editors.

NOW the fight is on for the grand championship, the most highly coveted prize of the entire show. The yearling champion and reserve and the calf champion and reserve are the selected four from which a 1928 grand champion and reserve grand champion is to come.

The judge looked them over carefully, walked them, looked and handled some more, then he drew out the two yearlings for final consideration. He liked them both. Which one would he pick? was the question being asked on every hand.

Decision Popular

The Sni-A-Bar grade Shorthorn, proud as a peacock, was well shown by that veteran showman, Jimmie Napier. The steer had wonderful lines, two good ends, level in the back, smooth of shoulder, smoothly and evenly fleshed, a very trim middle and was without doubt the best Shorthorn steer ever shown at any International show. That he would be a popular and most worthy grand champion was concluded on every hand. Both standing and at the walk he was superior to the other steer in style. He had the square ends. He looked the part of a real champion.

Then for the first time in the history of this great show, a steer fed by a 12-year-old club boy had earned his right to fight out the most coveted battle of all battles—that for the grand championship honors.

Dick, the pure-bred summer yearling Hereford steer started out last Saturday by winning his class and defeating all comers and all breeds in the junior fat steer contest. He was easily crowned the king of the bunch.

Clarence Goecke, his owner, is a timid little fellow, does not mind showing his steers at the home county fair in Iowa, but when he got to Chicago he decided that Sister Emma with six years of club experience to her credit, was the one to guide Dick's destinies. Emma, a quiet, business-like little girl of 18 years proved equal to every occasion. She was one of the coolest heads in the whole ring.

Dick always got a good showing. His feet were always in the right place. He is a real good steer. He might be a bit heavier in his lower thighs, but when it comes to thickness, smoothness, evenness and ripeness of high quality flesh over the shoulders, back, loin, hindquarters and ribs, he was the choice of the show. The judge liked him even better than the grade Shorthorn and gave him the crown. Never was a decision more popular or better received by the ringside.

Bred on Goecke Farm

The grand champion steer was bred on the Goecke farm at State Center, Iowa, and was fed by Clarence Goecke, a 12-year-old Iowa 4-11 Club boy.

Dick is 16 months and 4 days old and weighs 1,150 pounds. He is a good representative of the Goecke Hereford herd which was established four years ago and numbers 25 head. His development was simple. He suckled his mother for some five months, during which time he ran on grass and had nothing but pasture and the mother's milk.

At five months of age he was put on a mixed corn and was fed a grain ration of cracked corn four parts, crushed oats six parts, wheat bran and oilmeal one part each by weight. In addition he had access to clover hay and some silage. Each month the corn was increased some and the oats decreased in the ration.

At ten months of age he was taken

from the nurse cow, kept in a dark stall during the day and allowed the run of a dry lot at night. Since May first he has been fed cooked barley at noon, and since September first he has had cooked barley twice each day and was fed twice as much corn as oats. From January till September he was fed MacX steer feed spread over his grain ration. Since September first he has been fed some prepared molasses feed in addition to crushed corn, oats, bran, oilmeal and cooked barley. He was given all the grain he would eat up clean.

From May first to September first he had about three pounds of cooked barley per day, between September first and November first he was fed about six pounds of cooked barley per day, and during the last 30 days the corn and oats ration was reduced and the cooked barley increased to ten pounds per day.

Since August first he was walked about one mile each evening after sundown. This was done to keep him good on his legs, keen of appetite and firm in his flesh.

Since September first he has made an average gain of 2½ pounds per day. Clarence Goecke, the 12-year-old boy, in his second year of club work, has done all the feeding, exercising and caring for this steer.

This exemplifies that a grand champion steer does not have to be reared in a hothouse. The Goeckes are just plain, everyday, hard-working farmers. They work on the Goecke farm.

Leading Stock Counties

PROF. A. A. BORLAND says that "Pennsylvania is a great dairy state." He could afford to take in more territory, for according to Department of Agriculture figures farm crops produced in this state last year were worth \$215,405,000, while the livestock on farms is valued at \$173,022,000. Crops in nine counties are estimated at over five million dollars each, Lancaster leading with a valuation of \$18,609,000 followed by York with \$10,218,250. Chester county's crops were worth \$8,754,550; Berks, \$8,657,600; Bucks, \$8,565,100; Franklin, \$6,158,800; Westmoreland, \$5,268,180; Cumberland, \$5,154,400; Bradford, \$5,154,750; and all except eight counties produced crops except eight counties produced crops valued at over a million dollars. The state's total exceeds the combined totals of ten other states.

In value of livestock leading counties range in the following order: Lancaster, \$10,410,080; York, \$7,202,810; Chester, \$6,558,790; Bradford, \$6,253,640; Berks, \$5,867,530; Crawford, \$5,362,630; Bucks, \$4,930,120; Washington, \$4,697,700; Tioga, \$4,550,930; Susquehanna, \$4,517,150; Mercer, \$4,181,700 and Franklin \$4,171,560. All except 12 counties have a livestock valuation of over a million dollars.

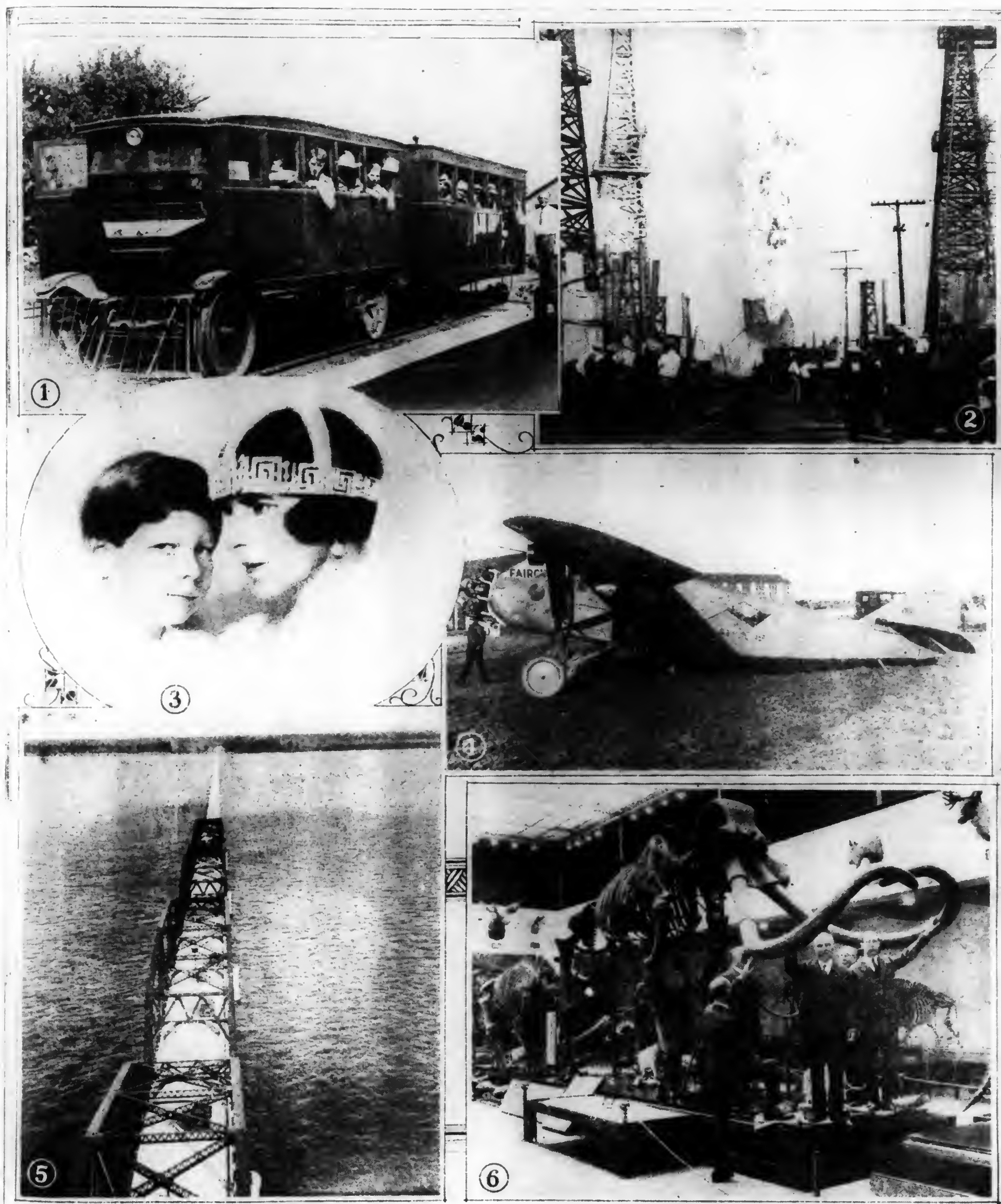
Bar Low Grade Fertilizer

IN the December 1 issue of Pennsylvania Farmer, W. D. Zinn says in a reply to an inquiry, regarding 1-3-1 fertilizer, from a farmer living in Pennsylvania: "Since this farmer lives in Pennsylvania, he can continue, I think, to apply 1-8-1 goods to his land for there is no law to prevent the sale of such low-grade goods, but if he lived in West Virginia he could not get it."

For the information of Mr. Zinn and others who read his statement, a law prohibiting the sale of mixed fertilizer containing less than 14 per cent of total plant food has been rigidly enforced in Pennsylvania since it became effective on January 1, 1926. At that time it was estimated that 50 per cent of the mixed fertilizer offered for sale in the state contained an excessive amount of filler for which high freight rates had to be paid. At the present time this low-grade fertilizer has been entirely eliminated from the state.

G. F. J.

EVENTS CAUGHT BY THE CAMERA



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1. The smallest train in the United States is located at Taber, Iowa. It runs between Taber and Malvern, Iowa, a distance of 11 miles and is owned and operated by E. V. Stopper. Small cars are used by Ford engines to take care of the load in slack season. The road is known as the Malvern and Northern line. The Interstate Commerce Commission puts a value of this road at \$15,000 because it would cost that much to build it here, but Stopper says that he wishes some one would offer him just half that much. The road runs through the "Bread Basket" of the world for it is in this district that the government report says is the most productive farming community on record. This is the only railroad that reaches Taber and connects the farming community which surrounds

2. An unusual sight—a pillar of furious flame without any smoke at all—the terrific blaze following the blow-in of the Bellevue No. 1 well in the fabulously rich field at Santa Fe Springs, Cal. The intense heat has spread destruction to adjacent derricks and the loss has already reached hundreds of thousands of dollars. This is the second severe fire in the field. A half mile away Getty No. 13 burned for nearly two months before engineers were able to extinguish it.

3. An excellent portrait of King Michel of Romania and his mother, Princess Helene. The photo was made on the youngster's seventh birthday.

4. The Stinson-Detroit, "Spirit of Canton," in which Jack Byrne, co-pilot; Tien Lai Huang, co-pilot; and D. Starr, mechanic, intend to hop off

stop flight to Canton, China. They are awaiting completion of lead tests before starting.

5. President Coolidge in Washington, formally opening the new \$2-million James River Bridge, by pressing a button that raised the level-lift span to a height of 147 feet above the water. The \$7,000,000 project makes possible the first direct connection between the Virginia Peninsula and the mainland.

6. Dr. William A. Bryan (second from right), curator of the Los Angeles County Museum explaining to the visiting British journalists the mammoth skeleton of the Imperial elephant, a prehistoric mammal. This skeleton is the world's largest of this type of beast. The visitors, left to right: H. Jacques, H. G. Davey, Sir Charles Livingston, and W. J. T.



Evolution of Market Cattle

At the International last week three steers were shown to illustrate the changes in the production of prime beef. The steer on the left is five years old and weighs 2,600 lbs. The next is three years old plus and weighs 2,100 lbs. The modern type is a long yearling, 16 months of age, and weighs 1,150 lbs.

International Awards on Fat Stock

Fat Steers

All steer classes judged by Walter Bigger, Dalhousie, Scotland.

Fat Shorthorns

Steers calved Jan. 1-May 31, 1927 (20 shown): 1, Univ. of Illinois, Urbana, Ill.; on King Hill; 2, Univ. of Wis., on Clara's Member; 3, Colo. Agr. Col., on Model Douglas; 4, Woodluff Farm, Shelbyville, Ky.; 5, Univ. of Alberta, Edmonton, Alta., Can.

Steers calved June 1-Sept. 30, 1927 (19 shown): 1, Bauld Larson, Harlan, Iowa, on Supreme Commander; 2, Univ. of Michigan, Ann Arbor, Mich.; 3, Kansas State Agr. Col., on Crown's Hair; 4, Woodluff Farm, West Va. Univ.

Steers calved between Oct. 1-Dec. 31, 1927 (14 shown): 1, Bauld Larson on White Sox; 2, Ohio A. & M. Col., on Emile Agam; 3, Woodluff Farm on Sandy; 4, Univ. of Ill.; 5, North Dakota Agr. Col.

Steers calved since Jan. 1, 1928 (11 shown): 1, Mich. State Col., on Souta's Victory; 2, Hayland Farm on Hayland; 3, Chapin; 4, Nebraska; 5, Kansas.

Champion: University of Illinois on King Hill. **Reserve champion:** Michigan State College on Souta's Victory. **Groups (12 shown):** 1, Illinois; 2, Woodluff Farm; 3, Oklahoma; 4, Minnesota; 5, Univ. of Alberta; 6, Michigan.

Fat Herefords

Steers calved Jan. 1-May 31, 1927 (17 shown): 1, University of Wisconsin on Lady; 2, West Virginia University on Lavin; 3, Hilldale Farm, Muscatine, Iowa, on Sander; 4, June Bittion, Casner, Ill.; 5, Oklahoma A. & M. College.

Steers calved between June 1-Sept. 30, 1927 (23 shown): 1, Clarence Goeckel, State Coll., Iowa, on Dick; 2, Michigan on Good; 3, West Virginia on Lawrence's Choice; 4, Iowa State Col.; 5, Colorado.

Steers calved between Oct. 1-Dec. 31, 1927 (25 shown): 1, Iowa on Bunc Domino; 2, Hilldale Farm on Muscatine; 3, Walter J. Hill, Wilsall, Mont., on Pandion; 4, Penna. 26th; 5, West Va. 5. C. A. Smith.

Steers calved since Jan. 1, 1928 (8 shown): 1, Purdue University on Beau Padlin; 2, Iowa on Bruce Domino; 3, Hilldale Farm on Muscatine; 4, St. Armon Col. 5, Colorado.

Champion: Clarence Goeckel on Dick (was champion steer in junior feeding contest about).

Reserve champion: Iowa State College on Bruce Domino.

Groups (13 shown): 1, Hilldale Farm; 2, Clarence Goeckel; 3, West Virginia; 4, Iowa State College; 5, Oklahoma A. & M. College.

Fat Aberdeen Angus

Judge: Walter Bigger, Dalhousie, Scotland, all breeds and classes.

Steers calved between Jan. 1-May 31, 1927 (32 shown): 1, Iowa State College, Ames, Iowa, on College Prince; 2, Briardell Farms Inc., Pine Plains, N. Y., on

Sota, St. Paul, Minn., on Robin Hood; 3, Univ. of Wisconsin, Madison, Wis.

Steers calved between June 1-Sept. 30, 1927 (19 shown): 1 and 2, Iowa State Col., on College Knight and College Model; 3, University of Kentucky, Lexington, Ky.; 4, Elliott Brown, Rose Hill, Ind.; 5, Briardell Farms Inc.

Steers calved between Oct. 1-Dec. 31, 1927 (10 shown): 1, Iowa State Col., on College Thicket; 2, Univ. of Minn., on St. Pierre Glen; 3, Kansas State Agricultural College, Manhattan, Kan., on Wheatland Lad; 4, Elliott Brown; 5, Ames Plantation, Grand Junction, Tenn.

Steers calved since Jan. 1, 1928 (17 shown): 1, F. L. Doran, Barrington, Ill., on Trade Horn; 2, Iowa State Col., on G. A. Model; 3, Congdon & Battles, Yakima, Wash., on Prizecase 12th; 4, Oklahoma A. & M. Col.; 5, Michigan State College, East Lansing, Mich.

Champion: Iowa State Col., on College Prince. **Reserve champion:** Iowa State Col., on College Thicket.

Groups (18 shown): 1, Iowa State Col.; 2, Briardell Farms Inc.; 3, Univ. of Minn.; 4, Univ. of Neb.; 5, Purdue Univ.

Fat Red Polls

Judge: H. J. Grandell, Lincoln, Neb. Steers calved Jan. 1-May 31, 1927 (14 shown): 1, Adolph P. Art, Eldridge, Ind., on Hon Lad; 2 and 3, Geo. Haussler & Sons, Eldridge, Ind., on Tip Top and Joker; 4, H. P. Olson, Albion, Ill.

Steers calved June 1-Sept. 30, 1927 (13 shown): 1, Adolph P. Art, on Poplar Lad; 2, Haussler & Sons on Perfect Charm; 3, and Ruth B.

Steers calved Oct. 1-Dec. 31, 1927 (7 shown): 1, Haussler & Sons; 2 and 3, Art on Primrose Lad and Elastic Lad.

Steers calved since Jan. 1, 1928 (3 shown): 1 and 3, Art on Poplar Lad and Dolly's Lassie; 2, Haussler on Charm's Stamp.

Champion: Art on Hon Lad. **Reserve champion:** Haussler & Sons on Repower.

Groups (14 shown): 1 and 4, Art; 2 and 3, Haussler.

Fat Galloways

Steers calved Jan. 1-May 31, 1927: 1, Frantz Bros, Mt. City, Ohio, on General.

Steers calved June 1-Sept. 30, 1927: Frantz Bros, on Lillian F.

Steers calved Oct. 1-Dec. 31, 1927 (12 shown): 1, West Virginia University, Morgantown, W. Va., on Plato F. 3d; 2, Frantz Bros, on Baroness 11th.

Steers calved since Jan. 1, 1928 (1, Frantz Bros, on Mick.

Champion steer: West Virginia on Plato F. 3d. **Reserve champion:** Frantz Bros, on General.

Groups: Frantz Bros.

Polled Shorthorn Steers

Steers calved between Jan. 1-May 31, 1927 (5 shown): 1, Albert Hultine & Sons, Saratoville, Neb., on Master Rex; 2 and 3, Murray, Mazon, Ill., on Brooks; 4, Marvin Youkum, Kewaskaw, Wis.

1927 (5 shown): 1, Hultine & Sons on Fair Lad; 2, Henry G. Wahls, Gannaville, Iowa, on Stardale; 3 and 4, Snowflake; 5, Elm Grove Farm, Belvidere, Tenn.

Steers calved between Oct. 1-Dec. 31, 1927 (4 shown): 1, Marvin Youkum on Gloster Lad; 2, Elm Grove Farm on Monk; 3, Murray on Brookside Laddie.

Steers calved since Jan. 1, 1928 (2 shown): 1, Murray on Brookside Betty Lou; 2, Elm Grove Farm on Snowflake.

Champion: Hultine & Sons on Master Rex. **Reserve champion:** Murray on Brookside Betty Lou.

Groups (3 shown): 1, Hultine; 2, Murray; 3, Elm Grove Farm.

Fat Grade and Cross Breeds

Steers calved between Jan. 1-May 31, 1927 (27 shown): 1, Sn-A-Bar Farms, Union Valley, Mo., on Sn-A-Bar Emblem; 2, Richard Lacy, Kansas, Ill., on Bobbie; 3, Paul A. University, Lafayette, Ind., on Paul's Marshall; 4, Iowa State College, Ames, Iowa; 5, Mrs. Dan Cassment, Manhattan, Kan.

Steers calved between June 1-Sept. 30, 1927 (31 shown): 1, Briardell Farms, Pine Plains, N. Y., on Briardell Top Sergeant; 2, Iowa State Col., on College Lookout; 3, Keith Collins on Blue Grass Favorite; 4, Kansas State Agr. Col.; 5, Univ. of Wisconsin, Madison, Wis.

Steers calved between Oct. 1-Dec. 31, 1927 (14 shown): 1, Iowa State Col., on College Marvel; 2, Henry Schmecker & Sons, Blairtown, Ind., on Randolph's Bull Boy; 3, Sn-A-Bar Farms on Sn-A-Bar Snowstorm; 4, V. O. Hildreth & Son, Albia, Iowa; 5, Univ. of Nebraska, Lincoln, Neb.

Steers calved since Jan. 1, 1928 (17 shown): 1, Univ. of Neb., on Blue Clover; 2 and 3, Iowa State Col., on College Banner and College Princess; 4, Harrison & Ryan; 5, Edwin Brown, Albia, Ill.

Champion steer: Sn-A-Bar Farms on Sn-A-Bar Emblem.

Groups (4 shown): 1, Iowa State Col.; 2, Sn-A-Bar Farms; 3, Briardell Farms Inc.; 4, Purdue Univ.

Champions by Ages

Champion steer, 1 year and under: Clarence Goeckel on Dick. **Reserve champion:** Sn-A-Bar Farms on Sn-A-Bar Emblem.

Champion steer under 1 year: Iowa State Col., on Bunc Domino. **Reserve:** Iowa State Col., on College Thicket.

Grand champion: Clarence Goeckel on Dick. **Reserve:** Sn-A-Bar Farms on Sn-A-Bar Emblem.

Groups (1 shown): Iowa on purebred Angus. **Reserve:** Hilldale on purebred Hereford.

Carcass Entries on Hoof

Judge: T. G. Patterson, Argyle, Ill. Steers calved between Jan. 1-May 31, 1927 (14 shown): 1, Keith Collins, Lis-

lege on College Dean; 3, Hall Orchards, Inc., on Sun Lee of Hall Orchards; 4, Briardell Farms, Inc.; 5, Mich. State Col.

Steers calved between June 1-Sept. 30, 1927 (14 shown): 1, Hall Orchards, Inc., on Sun Van of Hall Orchards; 2, Briardell Farms, Inc.; 3, Iowa State Col., on Postage; 4 and 5, Brookside, Manning, Iowa.

Champion: Keith Collins on Denny. **Reserve:** Hall Orchards, Inc., on Sun Van of Hall Orchards.

Carload Lots—Fat Cattle

Shorthorns, 2 yrs. old: B. W. Boon, New Berlin, Ill.

Shorthorn yearlings: 1, H. Hortensius, Gays, Ill.; 2, F. L. Griswold, Livingston, Wis.; 3, H. Hortensius; 4, Edellan Farm, Wilson, Ill.; 5, E. Veyyan, Union Grove, Wis.

Herefords, 2 years old: 1, Foster Bros, Earlham, Ind.; 2, K. Hoffman, Ind. Grove, Ind.; 3, C. M. Baum, Indianapolis, Ind.; 4, Allen Newlin & Sons, Indianapolis, Ind.; 5, Henry Hortensius.

Aberdeen-Angus, 2 yrs. old: 1, E. A. Tolan, Farmington, Ill.; 2, H. A. Deas, Fayette, Mo.; 3, E. P. Hall, Albia, Iowa; 4, John Hubby, Mason City, Ia.; 5, E. A. Tolan.

Aberdeen-Angus yearlings: 1, E. P. Hall; 2, J. W. Frazier; 3, E. A. Tolan; 4 and 5, John Hubby.

Carloads by ages, yearlings: 1, E. P. Hall; 2, J. W. Frazier; 3, E. A. Tolan; 4 and 5, John Hubby.

Champion: E. P. Hall, Mechanicville, Ill., on Aberdeen-Angus yearlings.

Carload Lots—Feeder Cattle

Yearlings shown, 14 carloads.

Judge: Harry Schindling, Potosi, Mo. **Champion:** A. M. Mitchell, Holsa, Dak., on Aberdeen-Angus calves.

Fat Sheep

Fat Shropshires

Judge: E. L. Shaw, Ashley, Ohio. Yearlings (14 shown): 1, Wisconsin on Pennsylvanian; 3, Tropic Farm, Cooperstown, N. Y.; 4, Iowa State College, Ames, Iowa; 5, Purdue.

Lambs (31 shown): 1, Kentucky; 2, J. Moore, Butler, Ind.; 3, Illinois; 4, Kansas; 5, Purdue.

Champion: University of Kentucky on yearling.

Pen of lambs (5 shown): 1, Chase Bros; 2, Kansas; 3, Moore.

Fat Hampshires

Judge: Wm. F. Bank, Sun Prairie, Wis. Yearlings (16 shown): 1 and 2, Iowa; 3, Purdue; 4, Kentucky; 5, Michigan.

Lambs (30 shown): 1 and 4, Purdue; 2, Minnie W. Miller, Wendell, Ind.; 3, Chase.

Champion: Purdue on Lamb. **Reserve:** Iowa State on yearling.

Pen of lambs (9 shown): 1, Purdue; 2, Chase Bros; 3, Kentucky.

Fat Oxford

Judge: Samuel Breese, West Lafayette, Ind.

Yearlings (9 shown): 1 and 3, Iowa; 2, Russell Fleming, Whithy, Ont., Can.; 4, Chase Bros.; 5, Michigan.

Lambs (13 shown): 1, 2 and 4, Fleming; 3, Michigan; 5, Nebraska.

Champion: Iowa State College on yearling. **Reserve:** Russell Fleming on lamb.

Pen of lambs (4 shown): 1, Fleming; 2, Michigan; 3, O. R. Quakenbush, Sharpshooter, Ind.; 4, Iowa.

Fat Lincolns

Judge: M. H. Thornton, E. Lansing, Mich.

Yearlings (4 shown): 1 and 3, H. M. Lee, Highland, Ont., Can.; 2 and 4, Robson & Goddard, Denfield, Ont., Can.

Lambs (7 shown): 1, H. M. Lee; 2, 3 and 4, Robson & Goddard.

Champion: H. M. Lee on yearling. **Reserve:** Lee on lamb.

Pen of lambs (3 shown): 1, Robson & Goddard; 2, Lee; 3, Harry T. Crandall, Cass City, Mich.

Fat Cotswolds

Judge: M. H. Thornton, E. Lansing, Mich.

Yearlings (5 shown): 1, 3 and 5, Chase Brothers, Glassworth, Ont., Can.; 2, Kansas State Agri. Col., Manhattan, Kans.; 4, James Parkinson, Guelph, Ont., Can.

Lambs (9 shown): 1 and 5, Harry T. Crandall, Cass City, Mich.; 2, 3 and 4, Chase Brothers.

Champion: Chase Brothers on yearling. **Reserve:** Chase Brothers on lamb.

Pen of lambs (3 shown): 1, Crandall; 2, Chase; 3, D. F. McDowell & Sons.

Fat Southdowns

Judge: E. L. Shaw, Ashley, Ohio.

Yearlings (28 shown): 1, Penna. State College, State College, Pa.; 2 and 5, Iowa State College, Ames, Iowa; 3, Oklahoma A. & M. College, Stillwater, Okla.; 4, Fair, of Illinois, Urbana, Ill.

Lambs (37 shown): 1, 4 and 5, Univ. of Kentucky, Lexington, Ky.; 2, Mountain Farm, Bradstreet, Mass.; 3, Okla. A. & M. College.

Champion: University of Kentucky on yearling. **Reserve:** Pennsylvania State College. **Pen of lambs (9 shown):** 1, Kentucky; 2, Chase Brothers, Willow Lakes, S. D.; 3, Univ. of Minnesota, St. Paul, Minn.

Fat Cheviots

Judge: W. W. Wilson, Muncie, Ind.

Yearlings (5 shown): 1, 2 and 3, Univ. of Kentucky; 4 and 5, Wisconsin.

Lambs (9 shown): 1, 2 and 3, Kentucky; 4, Keith B. Clark, Clark's Hill, Ind.; 5, Wisconsin.

Champion: Kentucky on lamb. **Reserve:** Kentucky on yearling.

Pen of lambs (3 shown): 1, Kentucky; 2, Wisconsin; 3, Clark.

Fat Dorsets

Judge: P. C. Mackenzie, State College, Pa.

Yearlings (8 shown): 1, Michigan State College, E. Lansing, Mich.; 2, 4 and 5, Kansas State Agri. Col., Manhattan, Kan.; 3, Fillmore Farms, Burlington, Vt.

Lambs (14 shown): 1, Kansas; 2 and 3, Fillmore Farms; 4, Chase; 5, Michigan.

Champion: Kansas State College on lamb. **Reserve:** Michigan State College on yearling.

Pen of lambs (4 shown): 1, Fillmore Farms; 2, Chase; 3, Kansas.

Fat Leicester

Judge: W. W. Wilson, Muncie, Ind.

Yearlings (3 shown): 1 and 2, Humphrey

Snell, Clinton, Ont., Can.; 3, Harry T. Crandall, Cass City, Mich.

Lambs (6 shown): 1, 2 and 3, Snell; 4, Crandall; 5, B. F. McDowell & Son, Mercer, Pa.

Champion: Snell on yearling. **Reserve:** Snell on lamb.

Pen of lambs (2 shown): 1, Humphrey Snell; 2, Harry T. Crandall.

Fat Ramboullets

Judge: E. L. Shaw, Ashley, Ohio.

Yearlings (11 shown): 1, Michigan State College, E. Lansing, Mich.; 2, Univ. of Nebraska, Lincoln, Neb.; 3, Univ. of Wisconsin, Madison, Wis.; 4 and 5, Oklahoma A. & M. College, Stillwater, Okla.

Lambs (16 shown): 1 and 2, Univ. of Illinois, Urbana, Ill.; 3 and 4, Purdue Univ., W. Lafayette, Ind.; 5, Okla. A. & M. College.

Champion: University of Illinois on lamb. **Reserve:** Michigan State Agricultural College.

Pen of lambs (5 shown): 1, Univ. of Ill.; 2, Purdue Univ.; 3, Okla. A. & M. Col.; 4, Univ. of Nebraska; 5, A. & M. College of Texas.

Fat Grade and Cross-Bred Sheep

Medium Wool or Down Types

Judge: E. L. Shaw, Ashley, Ohio.

Yearling (5 shown): 1, 2 and 3, Iowa State College, Ames, Iowa; 4, Pennsylvania State College, State College, Pa.; 5, Kansas State Agri. College, Manhattan, Kans.

Lambs (37 shown): 1, 4 and 5, Chase Brothers, Willow Lake, S. Dak.; 2, Pa. State College; 3, Kan. State Agri. Col.

Champion: Chase Brothers on lamb. **Reserve:** Iowa State College on yearling.

Pen of yearlings (3 shown): 1, Iowa State Col.; 2, Kan. Agri. Col.; 3, Univ. of Wisconsin.

Pen of lambs (8 shown): 1, Chase Bros.; 2, Kan. State Agri. Col.; 3, C. J. Brodie & Son, Stouffville, Ont., Can.

Long Wool Types

Judge: H. L. Garrigus, Storrs, Conn.

Yearlings (9 shown): 1, H. M. Lee, Highland, Ont., Can.; 2 and 3, Humphrey Snell, Clinton, Ont., Can.; 4 and 5, Chase Brothers, Glassworth, Ont., Can.

Lambs (12 shown): 1, 2 and 3, Robson & Goddard, Denfield, Ont., Can.; 4, Lee; 5, Snell.

Champion: H. M. Lee on yearling. **Reserve:** Robson & Goddard on lamb.

Pen of yearlings (4 shown): 1, Lee; 2, Snell; 3, Robson & Goddard.

Pen of lambs: 1, Robson & Goddard; 2, Shore; 3, Snell.

Carlots of Sheep

Judge: Joseph M. Horan.

Native lambs: 1, W. G. Miles, Evansville, Wis.; 2, Robert McEwen, London, Ont., Can.; 3 and 4, C. J. Brodie, Stouffville, Ont., Can.; 5, Chase Brothers, Willow Lakes, S. Dak.

Grand lambs from range ewes: 1, Chase Bros.; 2, Miles; 3, Purdue Univ.

Range lambs: 1, W. Wilson, Burlington, Wis.; 2, D. M. Ferry & Co., Detroit, Mich.; 3 and 4, Mercer & Hill, Prosper, Wash.

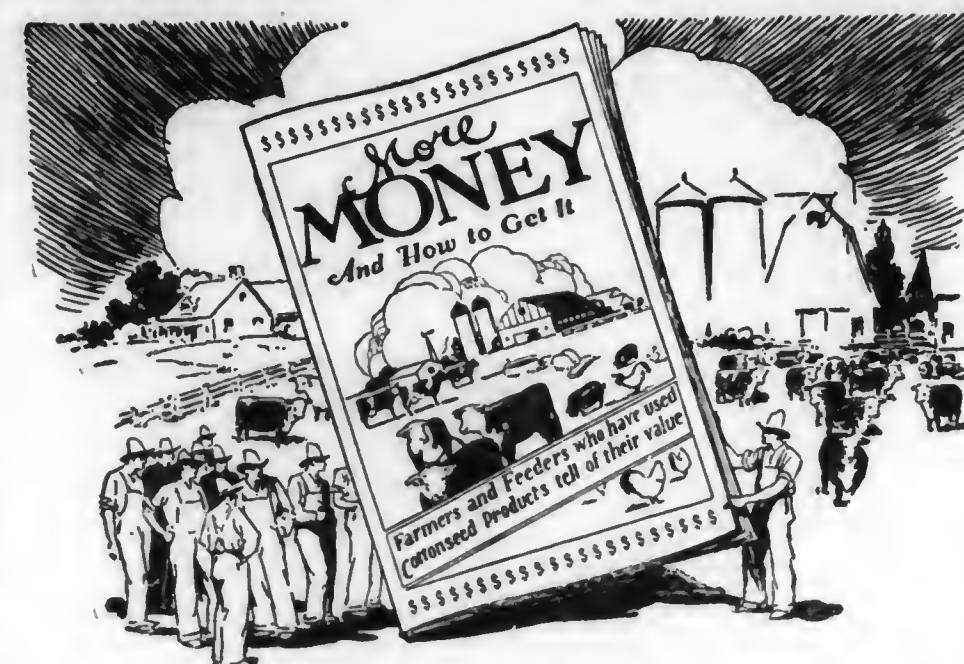
Range wethers, 1 yr. and under 2: 1 and 2, W. Wilson.

Range wethers, 2 yrs. and over: 1, W. Wilson.

Grand champion wether of the show: University of Kentucky on Southdown lamb. **Reserve:** University of Kentucky on Shropshire lamb.



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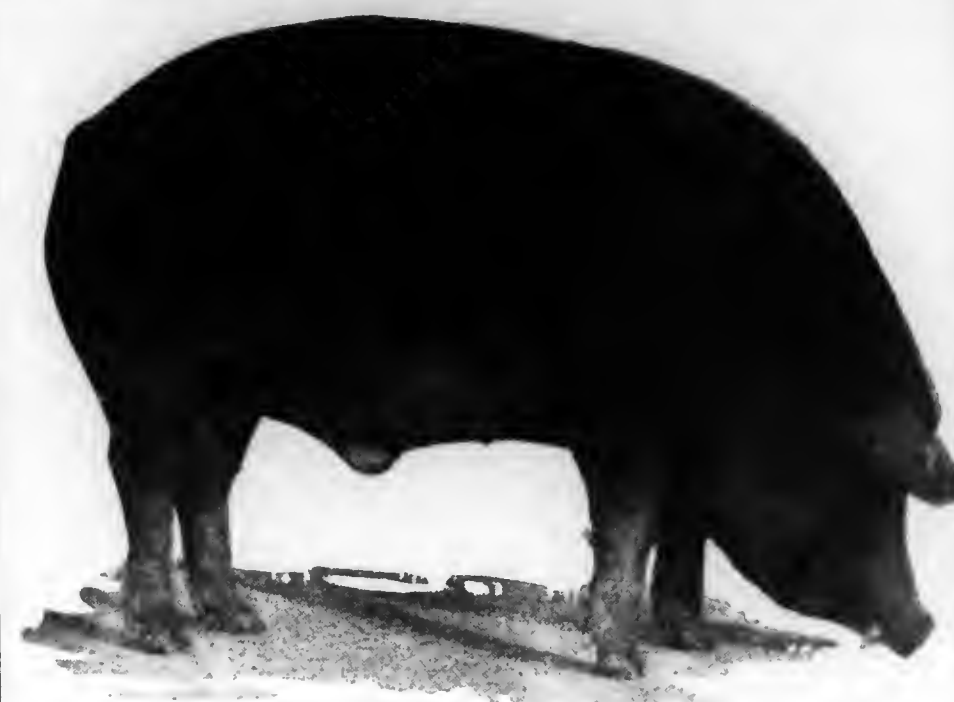
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Grand Champion Barrow at This Year's International Was a Duroc-Jersey in the Heavy-Weight Class, Shown by the Iowa State College

Fat Swine Awards

Fat Berkshires

Judge—E. J. Barker, Thornton, Ind.
Barrows, 200-250 lbs. (16 shown): 1, 3 and 5, Purdue Univ., W. Lafayette, Ind.; 2, Iowa State College, Ames, Iowa; 4, Pa. State Col., State College, Pa.
Barrows, 250-350 lbs. (10 shown): 1 and 2, Pa. State Col.; 3, J. H. Nickel & Sons, Aronville, Ill.; 4, Purdue Univ.; 5, Univ. of Neb., Lincoln, Neb.

Barrows, 350 lbs. and over (6 shown): 1, Iowa State College; 2, 3 and 4, Pa. State Col.; 5, Rick Bros., Maclay, Ore.
Pen of barrows, 200-250 lbs. (5 shown): 1, Purdue Univ.; 2, Pa. State Col.; 3, Iowa State Col.; 4, Mich. State Col., E. Lansing, Mich.; 5, J. H. Nickel & Sons.

Barrows, 250-350 lbs. (7 shown): 1, Pa. State Col.; 2, Purdue Univ.; 3, Iowa State Col.; 4, J. H. Nickel & Sons; 5, Mich. State Col.
Pen of barrows, 350 lbs. and over (6 shown): 1, Iowa State College; 2, 3 and 4, Pa. State Col.; 5, Rick Bros.

Five barrows (7 shown): 1 and 2, Pa. State Col.; 3, Purdue Univ.; 4 and 5, Iowa State Col.
Champion barrow: Iowa State Col. on heavy weight. Reserve: Purdue Univ. on light weight.

Champion pen: Iowa State Col. on heavy weight. Reserve: Pa. State Col. on medium weight.

Fat Poland-Chinas

Judge—Baylor Dobson, Lancaster, Wis.
Barrows, 200-250 lbs. (27 shown): 1 and 4, Univ. of Wis., Madison, Wis.; 2, Iowa State Col., Ames, Ia.; 3, Purdue Univ., W. Lafayette, Ind.; 5, Colorado Agri. Col., Ft. Collins, Colo.

Barrows, 250-350 lbs. (25 shown): 1 and 5, Purdue Univ.; 2, Iowa State Col.; 3, Univ. of Minn.; 4, Univ. of Wis.
Barrows, 350 lbs. and over (23 shown): 1, Okla. A. & M. Col., Stillwater, Okla.; 2, Iowa State Col.; 3 and 4, Univ. of Minn.; 5, Colo. Agri. Col.

Pen of barrows, 200-250 lbs. (13 shown): 1, Univ. of Wis.; 2, Purdue Univ.; 3, Iowa State Col.; 4, Okla. A. & M. Col.; 5, Univ. of Minn.

Pen of barrows, 350 lbs. and over (14 shown): 1, Iowa State Col.; 2, Okla. A. & M. Col.; 3, Univ. of Minn.; 4, Colo. Agri. Col.; 5, Univ. of Neb.

Five barrows, get of sire (6 shown): 1, Univ. of Wis.; 2, Purdue Univ.; 3, Iowa State Col.; 4, Colo. Agri. Col.; 5, C. L. Hulse.

Ten barrows, 200-250 lbs. (3 shown): 1, Univ. of Wis.; 2, Mich. State Col.; 3, C. L. Hulse.

Champion barrow: Okla. A. & M. Col., heavy weight. Reserve: Univ. of Wis., light weight.

Champion pen: Purdue Univ., light weight. Reserve: Univ. of Wis., light weight.

Fat Duroc-Jerseys

Judge—Henry Matern, Lonsdale, Ill.
Barrows, 200-250 lbs. (8 shown): 1 and 2, Purdue Univ.; 3, Univ. of Minn.; St. Paul, Minn.; 4, Agricultural & Mechanical College of Texas, College Station, Texas; 5, Iowa State College.

Barrows, 250-350 lbs. (27 shown): 1, Univ. of Minn.; 2, Gerald V. Hitchings, Univ. of Minn.; 3, Kansas State Agri.

col. College, Manhattan, Kan.; 4, Iowa State Col.; 5, Colorado Agricultural College, Fort Collins, Colo.

Barrows, 350 lbs. and over (22 shown): 1 and 3, Iowa State Col.; 2, University of Wisconsin, Madison, Wis.; 4, Pennsylvania State College, State College, Pa.; 5, Univ. of Minn.

Pen of barrows, 200-250 lbs. (2 shown): 1, Purdue Univ.; 2, Univ. of Minn.

Pen of barrows, 250-350 lbs. (8 shown): 1, Gerald V. Hitchings; 2, Univ. of Minn.; 3, Kansas State Agri. Col.; 4, Colorado Agri. Col.; 5, Iowa State Col.

Pen of barrows, 350 lbs. and over (5 shown): 1, Iowa State Col.; 2, Univ. of Wis.; 3, Pa. State Col.; 4, Univ. of Minn.; 5, Colorado Agri. Col.

Five barrows (4 shown): 1, Univ. of Wis.; 2, Pa. State Col.; 3, Colo. Agri. Col.; 4, A. & M. Col. of Texas.

Champion barrow (3 shown): 1, Iowa State Col.; 2, Purdue Univ.

Champion pen of barrows (3 shown): 1, Iowa State Col.; 2, Purdue Univ.

Fat Chester Whites

Judge—Arthur Tomson, Wabash, Ind.
Barrows, 200-250 lbs. (31 shown): 1, Purdue Univ., W. Lafayette, Ind.; 2, 3 and 5, Albert H. Stuart, New Hall, Ia.; 4, Ohio State Univ.

Barrows, 250-350 lbs. (49 shown): 1, 2 and 3, Univ. of Minn.; St. Paul, Minn.; 4 and 5, Purdue Univ.

Barrows, 350 lbs. and over (12 shown): 1, Dr. J. A. Swallum, Storm Lake, Iowa; 2, Albert H. Stuart; 3 and 5, Iowa State Col., Ames, Ia.; 4, Purdue Univ.

Pen of barrows, 200-250 lbs. (11 shown): 1, Albert H. Stuart; 2, Ohio State Col.; 3, Purdue Univ.; 4, Mich. State Col.; 5, Univ. of Illinois.

Pen of barrows, 250-350 lbs. (15 shown): 1, Univ. of Minn.; 2, Purdue Univ.; 3, Iowa State Col.; 4, A. J. Viedeman; 5, Carl Dale, Milford, Ill.

Pen of barrows, 350 lbs. and over (16 shown): 1, Iowa State Col.; 2, Dr. J. A. Swallum; 3, Albert H. Stuart; 4, Purdue Univ.; 5, Pa. State Col.

Five barrows (19 shown): 1, Albert Stuart; 2 and 3, Purdue Univ.; 4, Ohio State Col.; 5, Univ. of Minn.

Pen of barrows, 250-350 lbs. (15 shown): 1, Purdue Univ.; 2, Iowa State Col.; 3, Univ. of Minn.; 4, Univ. of Wis.; 5, Univ. of Neb.

Pen of barrows, 350 lbs. and over (14 shown): 1, Iowa State Col.; 2, Okla. A. & M. Col.; 3, Univ. of Minn.; 4, Colo. Agri. Col.; 5, Univ. of Neb.

Five barrows, get of sire (6 shown): 1, Univ. of Wis.; 2, Purdue Univ.; 3, Iowa State Col.; 4, Colo. Agri. Col.; 5, C. L. Hulse.

Ten barrows, 200-250 lbs. (3 shown): 1, Univ. of Wis.; 2, Mich. State Col.; 3, C. L. Hulse.

Champion barrow: Okla. A. & M. Col., heavy weight. Reserve: Univ. of Wis., light weight.

Champion pen: Iowa State Col. on heavy weight. Reserve: Univ. of Minn. on medium weight.

Fat Hampshires

Judge—L. A. Weaver, Columbia, Mo.
Barrows, 200-250 lbs. (21 shown): 1 and 2, J. A. Sellars & Sons, Lathrop, Mo.; 3, Iowa State Col., Ames, Iowa; 4, A. & M. Col. of Texas, College Station, Texas; 5, Purdue Univ., W. Lafayette, Ind.

Barrows, 250-350 lbs. (19 shown): 1 and 3, Iowa State Col.; 2, J. A. Sellars & Sons; 4 and 5, Purdue Univ.

Barrows, 350 lbs. and over (24 shown): 1 and 3, Iowa State Col.; 2, Ohio State Univ., Columbus, O.; 4, A. & M. Col. of Texas; 5, J. M. Ballard, Marion, Ind.

Pen of barrows, 200-250 lbs. (9 shown): 1, J. A. Sellars & Sons; 2, Okla. A. & M. Col., Stillwater, Okla.; 3, Iowa State Col.; 4, Purdue Univ.; 5, A. & M. Col. of Texas.

Pen of barrows, 250-350 lbs. (6 shown): 1, Purdue Univ.; 2, Okla. A. & M. Col.; 3, Iowa State Col.; 4, Iowa State Col.; 5, I. C. Lister.

Pen of barrows, 350 lbs. and over (10 shown): 1, 3, Kan. State Agri. Col.; 2, Okla. A. & M. Col.; 4, Iowa State Col.; 5, I. C. Lister.

Pen of barrows, 200-250 lbs. (12 shown): 1, Iowa State Col.; 2, I. C. Lister.

Pen of barrows, 250-350 lbs. (3 shown): 1, Okla. A. & M. Col.; 2, I. C. Lister; 3, Kan. State Agri. Col.

Pen of barrows, 350 lbs. and over (13 shown): 1, Kan. State Agri. Col.; 2, Okla. A. & M. Col.; 3, I. C. Lister.

Five barrows, get of sire (12 shown): 1, I. C. Lister; 2, Iowa State Col.

Champion barrow: Kan. State Agri. Col. on heavy weight. Reserve: Iowa State Col. on light weight.

Champion pen of barrows: Kan. State Agri. Col. on heavy weight. Reserve: Iowa State Col. on light weight.

Grand champion barrow of the show: Iowa State Col., Duroc-Jerseys. Reserve: Dr. J. A. Swallum, Storm Lake, Iowa, on Chester-Whites.

Grand champion pen of barrows: Iowa State College on Hampshire.

Carload Lot Hogs

Grand champion: J. M. Ballard, Marion, Ind., on Hampshires.

Class 201, 200 and under 250 lbs.: 1, P. A. Hon, Valparaiso, Ind., Duroc-Jerseys; 2, V. Rogers, Henry, Ill., Hampshires;

3. J. A. Sellars & Sons; 4. J. M. Ballard; 5. Simon C. Moon, Towanda, Ill.
Class 265, 250 lbs. and under 300 lbs.: 1, P. J. Horn, Duroc-Jerseys; 2, E. Richards, Dubuque, Ill., Poland-Chinas; 3, H. E. Fernald, West Point, Ill., Chester Whites.

Class 266, 300 lbs. and under 350 lbs.: 1, J. M. Ballard, Hampshires; 2, Notre Dame Univ., Notre Dame, Ind., Hampshires.

Champion barrow: Iowa State Col., medium weight. Reserve: Iowa State Col., heavy weight.

Champion pen of barrows: Iowa State Col., heavy weight. Reserve: J. A. Sellars, light weight.

Fat Tanworths

Judge—L. M. Reed, Oskaloosa, Iowa.
Barrows, 200-250 lbs. (7 shown): 1 and 2, Iowa State Col., Ames, Ia.; 3, Fox Chemical Co., Des Moines, Ia.; 4 and 5, Mich. State Col., E. Lansing, Mich.

Barrows, 250-350 lbs. (4 shown): 1, 2 and 4, A. & M. Col. of Texas, College Station, Texas; 3, Fox Chemical Co.

Barrows, 350 lbs. and over (2 shown): 1, Guy W. Baker, Shelbyville, Ill.; 2, Fox Chemical Co.

Pen of barrows, 200-250 lbs. (3 shown): 1, Iowa State Col.; 2, Mich. State Col.; 3, Fox Chemical Co.

Pen of barrows, 250-350 lbs. (3 shown): 1, A. & M. Col. of Texas; 2, Fox Chemical Co.

Pen of barrows, 350 lbs. and over (1 shown): 1, Fox Chemical Co.

Pen of barrows, get of sire (2 shown): 1, Mich. State Col.; 2, Fox Chemical Co.

Ten barrows, 200-250 lbs. (11 shown): 1, Fox Chemical Co.

Champion barrow: Iowa State Col., light weight. Reserve: A. & M. Col. of Texas, medium weight.

Champion pen of barrows: Iowa State Col., light weight. Reserve: A. & M. Col. of Texas, medium weight.

Fat Yorkshires

Judge—Arthur L. Anderson, Ames, Ia.
Barrows, 170-210 lbs. (9 shown): 1 and 4, Univ. of Wisconsin, Madison, Wis.; 2, 3 and 6, Univ. of Minnesota, St. Paul, Minn.; 5, Ohio State Univ., Columbus, O.

Barrows, 210-250 lbs. (13 shown): 1, 2 and 3, Univ. of Wis.; 4, Ohio State Univ.; 5, Univ. of Minn.; 6, Mich. State Col.

Pen of barrows, 170-210 lbs. (12 shown): 1, Univ. of Minn.; 2, Univ. of Wis.; 3, Ohio State Univ.; 4, Mich. State Col.; 5, Ohio State Univ.

Pen of barrows, 210-250 lbs. (15 shown): 1, Ohio State Univ.; 2, Mich. State Col.; 3, 4, 5, Univ. of Minn.; 6, Cuddey Bros., Ga.

Pen of 5 barrows, get of sire (4 shown): 1, Univ. of Minn.; 2, Ohio State Univ.; 3, Mich. State Col.; 4, Cuddey Bros., Ga.

Ten barrows, 170-210 lbs. (11 shown): 1, Guy of Minn.

Champion barrow, medium weight: Guy of Wis. Reserve, light weight: Guy of Wis.

Champion pen of barrows: 1, Univ. of Minn. Reserve: Ohio State Univ.

Fat Spotted Poland-Chinas

Judge—E. C. Caverly, Peoria, Ill.
Barrows, 200-250 lbs. (6 shown): 1, 4 and 5, Iowa State Col., Ames, Ia.; 2 and 3, I. C. Lister, Polaski, Iowa.

Barrows, 250-350 lbs. (9 shown): 1, Kansas State Agri. Col., Manhattan, Kan.; 2 and 3, Oklahoma A. & M. Col., Stillwater, Okla.; 4 and 5, I. C. Lister.

Barrows, 350 lbs. and over (10 shown): 1, 3, Kan. State Agri. Col.; 2, Okla. A. & M. Col.; 4, Iowa State Col.; 5, I. C. Lister.

Pen of barrows, 200-250 lbs. (12 shown): 1, Iowa State Col.; 2, I. C. Lister.

Pen of barrows, 250-350 lbs. (3 shown): 1, Okla. A. & M. Col.; 2, I. C. Lister; 3, Kan. State Agri. Col.

Pen of barrows, 350 lbs. and over (13 shown): 1, Kan. State Agri. Col.; 2, Okla. A. & M. Col.; 3, I. C. Lister.

Five barrows, get of sire (12 shown): 1, I. C. Lister; 2, Iowa State Col.

Champion barrow: Kan. State Agri. Col. on heavy weight. Reserve: Iowa State Col. on light weight.

Champion pen of barrows: Kan. State Agri. Col. on heavy weight. Reserve: Iowa State Col. on light weight.

Grand Championships

Grand champion barrow of the show: Iowa State Col., Duroc-Jerseys. Reserve: Dr. J. A. Swallum, Storm Lake, Iowa, on Chester-Whites.

Grand champion pen of barrows: Iowa State College on Hampshire.

Carload Lot Hogs

Grand champion: J. M. Ballard, Marion, Ind., on Hampshires.

Class 201, 200 and under 250 lbs.: 1, P. A. Hon, Valparaiso, Ind., Duroc-Jerseys; 2, V. Rogers, Henry, Ill., Hampshires;

Class 202, 250 lbs. and under 300 lbs.: 1, P. J. Horn, Duroc-Jerseys; 2, E. Richards, Dubuque, Ill., Poland-Chinas; 3, H. E. Fernald, West Point, Ill., Chester Whites.

Class 266, 300 lbs. and under 350 lbs.: 1, J. M. Ballard, Hampshires; 2, Notre Dame Univ., Notre Dame, Ind., Hampshires.

Champion barrow: Iowa State Col., medium weight. Reserve: Iowa State Col., heavy weight.

Champion pen of barrows: Iowa State Col., heavy weight. Reserve: J. A. Sellars, light weight.

3. Burns Bros., Arenzville, Ill., Poland-Chinas.

Class 265, 250 lbs. and under 300 lbs.: 1, P. J. Horn, Duroc-Jerseys; 2, E. Richards, Dubuque, Ill., Poland-Chinas; 3, H. E. Fernald, West Point, Ill., Chester Whites.

Class 266, 300 lbs. and under 350 lbs.: 1, J. M. Ballard, Hampshires; 2, Notre Dame Univ., Notre Dame, Ind., Hampshires.

Champion barrow: Iowa State Col., medium weight. Reserve: Iowa State Col., heavy weight.

Champion pen of barrows: Iowa State Col., heavy weight. Reserve: J. A. Sellars, light weight.

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1925—Mah Jongg Angus 3.60

1924—Deacon Hereford 1.40

1923—Broadus White Socks Angus .60

1922—Chenoweth Jack Shorthorn 1.25

1921—Lulu Mayflower Short-Angus 1.10

1920—Black Rider Angus 1.75

1919—Junion Lad Angus 2.62

1918—Fevie Knight H Angus 2.50

1917—Merry Monarch Shorthorn 2.10

1916—Calif. Favorite Here-Short 1.75

1915—

1914—

1913—Glencrook Victor 2nd Angus .4

1912—Glencrook Victor Angus .50

1911—Victor Angus .90

1910—Shamrock 2d Angus .90

1909—King Ellsworth Angus .20

1908—Fevie Knight Angus .20/4

1907—Ryan King Shorthorn .24

1906—Peerless Wilton

1905—Blackie Defender Hereford .4

1904—Clear Lake Jude 2nd Angus .26

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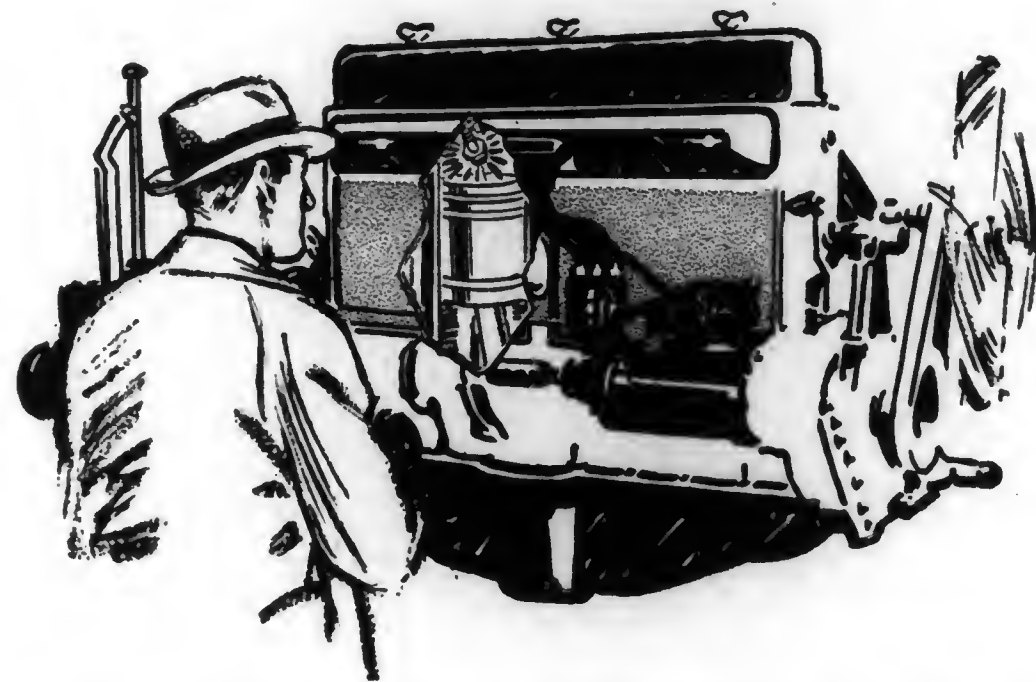
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(No. 9)

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There is only one way to prevent this unnecessary damage and save yourself money—use an oil that is made to give rich, thorough lubrication as well as quick starting.

Such an oil is Gargoyle Mobiloil

Arctic. Mobiloil Arctic has extreme fluidity that gives you a quick, rich spurt of oil to every friction surface the minute you start the engine. As your engine warms up, Mobiloil Arctic's rich "oiliness" coats these surfaces with a cushioning film of oil that prevents metal-to-metal contact.

How to buy

For a large supply it is cheaper to buy the 55-gallon and 30-gallon drums with convenient faucet. The Mobiloil dealer will give you a satisfying discount.

Other Mobiloil containers are: 10-gallon steel drums with faucet, 5-gallon cans in easy-tipping racks and 1-gallon and 1-quart cans.

If your car is not mentioned in the Mobiloil Chart on this page consult the Mobiloil dealer's complete list of Winter Recommendations for your car, truck or tractor. You are always sure with

Make this chart your guide

If your automotive equipment is not listed below see complete Mobiloil Chart at your dealer's. It recommends the correct grades for all cars, trucks and tractors, etc.
Follow winter recommendations when temperatures from 32° F. (freezing) to 0° F. (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, Model T, use Gargoyle Mobiloil "E").

NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS	1928		1927		1926		1925	
	Engine	Winter	Engine	Winter	Engine	Winter	Engine	Winter
Autocar.....	A	Arc	A	Arc	A	Arc	A	Arc
Buick.....	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Chandler Special Six (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet.....	A	Arc	A	Arc	A	Arc	A	Arc
Chrysler 4 cyl.....	A	Arc	A	Arc	A	Arc	A	Arc
Imperial 80 (other models).....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Diamond T.....	A	Arc	A	Arc	A	Arc	A	Arc
Dodge Bros.....	A	Arc	A	Arc	A	Arc	A	Arc
Durant.....	A	Arc	A	Arc	A	Arc	A	Arc
Essex.....	A	Arc	A	Arc	A	Arc	A	Arc
Federal 86, 386, F6, U6.....	A	Arc	A	Arc	A	Arc	A	Arc
X2, T6W, T6B (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Ford 4 & 8 A.....	A	Arc	A	Arc	A	Arc	A	Arc
T & TT.....	E	E	E	E	E	E	E	E
Franklin.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
G. M. C. T10, T20, T40, T50 (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Garford.....	A	Arc	A	Arc	A	Arc	A	Arc
Graham Bros.....	A	Arc	A	Arc	A	Arc	A	Arc
Hudson.....	A	Arc	A	Arc	A	Arc	A	Arc
Hupmobile.....	A	Arc	A	Arc	A	Arc	A	Arc
Indiana 611, 6111.....	A	Arc	A	Arc	A	Arc	A	Arc
(other models).....	A	Arc	A	Arc	A	Arc	A	Arc
International 35, 45, 65, 105, 74C, 54DR, 54C, 74DR, S, SD (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Mack.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Nash.....	A	Arc	A	Arc	A	Arc	A	Arc
Oakland.....	A	Arc	A	Arc	A	Arc	A	Arc
Overland.....	A	Arc	A	Arc	A	Arc	A	Arc
Packard.....	A	Arc	A	Arc	A	Arc	A	Arc
Paige.....	A	Arc	A	Arc	A	Arc	A	Arc
Pontiac.....	A	Arc	A	Arc	A	Arc	A	Arc
Reo (all models).....	A	Arc	A	Arc	A	Arc	A	Arc
Republic 11X, 19, 20, 25.....	A	Arc	A	Arc	A	Arc	A	Arc
S-25W, 25-W6 (other models).....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
Service.....	A	Arc	A	Arc	A	Arc	A	Arc
Star.....	A	Arc	A	Arc	A	Arc	A	Arc
Stewart 9, 21, 21X (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Synobaker.....	A	Arc	A	Arc	A	Arc	A	Arc
Valve.....	A	Arc	A	Arc	A	Arc	A	Arc
White 15, 15A, 15B, 20, 20A (other models).....	A	Arc	A	Arc	A	Arc	A	Arc
Willis Knight 4 cyl., 6 cyl.....	BB	Arc	BB	Arc	BB	Arc	BB	Arc
TRACTORS								
Allis Chalmers 12-20, 15-25 (other models).....	BB	A	BB	A	BB	A	BB	A
Case 22-40, 25-45, 40-72 (other models).....	BB	A	BB	A	BB	A	BB	A
Caterpillar Combine Harvester 32 (other models).....	B	A	B	A	B	A	B	A
Citroen.....	BB	A	BB	A	BB	A	BB	A
E. B.....	B	A	B	A	B	A	B	A
Fordson.....	BB	A	BB	A	BB	A	BB	A
Hart Parr.....	B	A	B	A	B	A	B	A
John Deere.....	BB	A	BB	A	BB	A	BB	A
McCormick Deering Oil Pull.....	B	A	B	A	B	A	B	A
Twin City 12-20, 20-25 (other models).....	BB	A	BB	A	BB	A	BB	A
Wallis.....	BB	A	BB	A	BB	A	BB	A

TRANSMISSION AND DIFFERENTIAL:
For their correct lubrication, use Gargoyle Mobiloil "C", "CC", or Mobilolubricant as recommended by complete Chart available at all dealers.



Mobiloil

Look for the red Gargoyle trade-mark
on the Mobiloil container

PENNSYLVANIA FARMER

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER

December 22, 1928

Established 1877



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Pays a big profit on WHEAT

LIKE to add from 5 to 15 bushels per acre to your wheat crop? You can. Simply decide now to feed your crop liberally with Chilean Nitrate (150 lbs. or so per acre). You'll get an increase that pays for the fertilizer and shows a nice profit besides.

Chilean Nitrate is the original natural nitrogen fertilizer—not synthetic. It gives your crops available nitrogen during early growth when they need it most. Increases yield. Better quality, too. Shows a fine profit on small grains, corn, fruit and all vegetables. Experiment stations and county agents endorse it. Now is the time to figure out your fertilizer needs and make sure of your supply of Chilean Nitrate.

Fertilizer Book FREE

Our new 44-page book "How to Use Chilean Nitrate of Soda" tells how to fertilize wheat and all your other crops. It is free. Ask for Book No. 1 or tear out this ad and send it with your name and address written on the margin.

Chilean Nitrate of Soda

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Columbus, Ohio

In writing please refer to Ad No. B-23

Read the Advertisements

they keep you to the fore of modern life. Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready-to-eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts. Read the advertisements carefully and when answering them, say you saw their ad in Pennsylvania Farmer.

PIG INCUBATOR

Saves Pigs—
Doubles
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Perfects
McLean System
Costs Less Than
You Can Build It

See how you can follow our spring plan in February. Much action during cold weather. Patented "Pig Incubator" with 6 sections for 60 pigs and sows with deep-laying capacity. 200 lbs. live pigs warm and ready to market. Well ventilated and heated. No need of artificial heat. Easy to clean. Fast in construction. Best construction.

THOUSANDS IN USE

Also, Economy Brooder Houses enable you to brood your early chicks successfully. Convertible for laying houses after chicks are raised. Don't lose any line of poultry house until you have investigated the Economy Plan. Exclusive features make them profitable to all others.

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Franklin Park, Ill., Dept. 10
Show me how to DOUBLE MY PROFITS FROM
PIGS
Name..... E.F.D.

3-PIECE GUARANTEED BATHROOM OUTFIT

COMPLETE SPECIAL
WITH ALL-48
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SEND FOR FREE CATALOGUE

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PLUMBING & HEATING SUPPLIES
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OUR ENORMOUS OUTLET DEMANDS YOUR
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J. C. Berman has satisfied thousands of shoppers for 25 years. Write or visit for quotations, lists, market conditions, etc. REFERENCE: Chatham Phoenix National Bank & Trust Co.
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Farm Facts and Fancies

By ALVA AGEE

I HAVE been setting down facts and fancies for a number of years that a Jerseyman I know would designate as "quite some". In it all there has been regret when platitudes crept in—I don't like them—and yet am wishing to say something that readers I may have will classify as obvious enough. Beating round the bush only takes time, and the thought is merely the wonder what the world would be if no one wished ill to come to another. I have tried, looking forward to the Christmas, to picture the state of affairs in this complicated world if we went so far as to achieve negative goodness, and didn't want to see life made harder for another. Now, I don't mean this in a general way—the most of us can get by on a glittering generality—but my concern is with the details of the daily grind of life where impulse dominates.



For Example

The day gets too full of examples. Some nervous fellow cuts in ahead of me—no matter whether it is on the highway, in the bread-line, or on the way to success in business or position. The impulse is to enjoy the situation when he gets what an acquaintance calls his "come-uppance". Our ill-will is excused by ourselves, or branded curiously enough even as a virtue, a love of justice. In some instances it might be so, but usually not.

Life's competition breeds a desire to profit not only by any speeding up we can do, but also by any slowing down of a competitor. The net result is loss of ability to wish all people well. That is the trouble on earth today. What a world we would have if we rose to the level of regretting the ill that befall all others—a negative goodness of positive value!

About all one can do is to work at the job for himself, and it grows easier as he dwells on the difficulties the other fellow meets because he is in the world. It is a working program that seems fairly easy at times and too difficult many more times. Likeable people present no problem, it may be, but good-will toward them is no particular virtue; the person one doesn't find any easy way of liking is the proposition—and quite a proposition.

Our Southern Neighbors

I wish to set down some facts, hoping that my readers may be interested in fitting them together. They concern us as farmers and as a part of the nation. Mr. Hoover's trip to the Latin-American countries helps us to appreciate the importance our statesmen attach to good-will between them and us. We have not been very fortunate in our relations with them, due partly to misunderstanding of our motives and partly to some acts of our own. Anyway and anyhow, the press of most of these countries has been inclined to put a wrong interpretation on much that we have done, and there is little such fundamental friendship as that existing between us and our northern neighbor. Mr. Hoover's effort is to change the attitude of the southern peoples so that they will come to see that we do not want to be aggressive or dominating.

A Big Obstacle

We know that we are not now popular in Europe. The reasons are plentiful, but many of them rise out of the fact that we are rich, our foreign com-

merce is growing, and they are in debt to us and feel unequal to competition with us. Very often creditors do not look good to debtors. Even before the Great War some European countries were able to get closer to the Latin-American countries in a business way than was possible to us, and that contact was used to promote a dislike for us and our ways. Europe wants the trade of these people, and there has been seeking of advantage in many instances by encouraging distrust of our powerful country.

Where the Farmer Comes In.

Tariffs do not tend to promote good-will. Their purpose is either to make another country contribute to the revenues of the country levying the tariff or else to bar the products of the other countries. We are committed to protective tariffs, and under them manufacturing interests have thrived and the home market for farm products has grown. I am not arguing anything, but trying to set down a fact everyone accepts.

There are a great number of these American countries that send us so many products. Some of them we need, and there is no difficulty on their score, and some we can produce at home. This country finally is committed to the policy of protecting the farmer as far as a tariff can go in protecting those whose land resources are greater than is needed. All of us are saying that the government must do whatever can be done in this way.

Extending Our Market

Of course we want to do more business with these American countries. The more manufactured goods we sell them, the better our home market for food. We shall hear a lot about that but the idea is well fixed in our mind that we want no round-about road to prosperity for agriculture by admitting any farm products we should grow ourselves, although it would encourage trade and expand foreign commerce.

Put Yourself in His Place

It is easy going when saying things—they are obvious. Now, suppose you were in a position of great power in the matter. Suppose you knew the feeling of Europe toward the cultivated distrust of nearly all these Latin-American countries, and our need of friends in this world. Suppose you knew that some country was sending in a relatively small amount of stuff under a moderate tariff, and that such shipments meant a lot to them. Knowing these things, would you expect your good-will mission to them do more than exasperate them, later if you barred what little they had sold us? The country is going to meet us by our acts, and cannot see any but its own side.

On the other hand we know the farmers have paid enough for a national prosperity in which they are not fairly share, and are they not the fullest possible protection through the government's tariff to any product of these Latin-American neighbors that the United States produce? The facts glare at each other. This is the time to make a compromise that Europe keep our American neighbors watchful and distrustful of us, and this is the time when we want competition for our own home market.

I am glad we have statesmen to deal with the matter, and for one I would not be critical of individual decisions by the Administration as cases arise. The situation is difficult. And these countries must learn that we do not need or want what we can produce at home.

An American Editor Abroad

By E. S. BAYARD

OVER the route of the Pyrenees we left Nîmes, going through Montpellier and spending the night at Beziers. We were on our way to Carcassonne, the only walled city now remaining as it was in the middle ages. This ancient city, which recently celebrated the two thousandth anniversary of its foundation, stands on a hill commanding a view of a wide expanse. It was selected because of its strategic advantages in a day when every city had to be defended. It has been fortified by successive races of men, and their handiwork still shows in its walls, but the present walled city is mainly the product of the eleventh century and later. Its defenses consist of two walls, one within the other, with about fifty towers on the walls and a citadel on the summit of the hill. The walls are so constructed and the towers so located as to insure the visibility of the assailants and the security of the defenders. The means of defense, by archery, by boiling oil, by stones and other missiles are highly ingenious but rather difficult to describe. Suffice it to say that then as now man's ingenuity was developed by necessity.

Old Streets Not Built for Autos

After some trouble we secured a guide, who was a badly battered French soldier, one eye and much of one jaw shot away. As a comrade of Anthony in the great war he took special care to show us everything, speaking only French but speaking it slowly so that we might understand it. If all speakers would do likewise some of us Americans could make our French go a good deal farther, and the same applies to a few of the Scotch and even the English.

With our French guide we studied the walls, showing the masonry of the Romans, the Goths, the Saracens and the French. He explained the operation of the defenses, including the means by which the archers could shoot without exposing themselves, the method of hurling stones and other missiles down on the assailants, and the heating and pouring of the oil which scorched those who would breach the walls. A modern open-air theatre is one of the city's features now. There the great actors appear in medieval scenes with real scenery to support them.

Little is modern in Carcassonne save the hotel and a few of the shops, but the ancient houses within the walls are inhabited by about 600 people. Automobiles in such surroundings seem incongruous. One way traffic is the rule, with only one street wide enough for a car or a truck. While one car is coming out none can enter and vice versa. Fortunately very little time is required to cover the only route in the town—from the gate to the hotel.

Goose Girls of Toulouse

On the way to Toulouse, through a good farming region, we saw many of the geese for which that district is famous. A woman or a girl seemed to be in charge of the geese when any body was, but we saw no large flock at any one place. The cathedral at Toulouse is an interesting one, among the treasures of the twelfth century, now in decay.

At Montauban we were halted to allow the passage of a regiment of African soldiers. Senegalese of the French regular army. They were being shifted from one place to another and were in heavy marching order. The weather was hot and the darkeys were listening with great interest to the music of their assembly of

The officers were all white and French and so were some of the top sergeants, but aside from these the whole crowd of about 3,000 was African. Some were tall and some were short but all were sturdy. More than a few of them bore visible scars but whether there were scars of battle or of revelry we did not ascertain. The mounts of the French officers were not impressive, in fact the whole equine equipment of this regiment appeared to be inferior and underfed.

We moved northward from Toulouse to Limoges. Before getting into this region we saw some rather rangy red cattle—the Auvergnats, or cattle of the Auvergne mountain region. They appear to be dual in function, even more, for they are used as draft animals. As we approach Limoges the compact beefy Limousin cattle appear. They are in color much like Jerseys but there the resemblance ends, for they are beef cattle of very useful type.

I have been asked why none of these French breeds is known in our country. Many years ago some of the Cotentin or Normandy cattle were imported and bred in New York. I remember, before the present century, the dispersion of a herd of them, and the exhibition of a pair of big Normandy oxen at the New York State Fair the first year it was held on its present grounds at Syracuse. These were the only French cattle I have ever seen in our country. For many years foot-and-mouth disease in continental Europe has prevented importations. I don't think we have suffered much loss by having no French cattle. Our beef and our dairy cattle both appear to be superior to the French breeds, at least superior for our use. The French far excel us in one thing, however. They have the finest veal calves and veal I have ever seen anywhere. Our veal calves are a sorry lot as compared with those I saw in the Paris stockyards.

An American Aviation Center

One day we drove a little out of our way to take lunch at Romerantin, an American aviation center during the war. Anthony had known this place when his regiment was quartered near it. A few of the American army's temporary buildings survive but only a few. Most of those Anthony knew are gone, but he could recognize a couple of mess halls. So could I, for they were labeled. But they seemed out of place in a French landscape.

Anthony said that this plain was a lively place during the war, with sixty or seventy thousand American soldiers, big hangars, and a real American railroad. He wanted to see again an old French couple who had been the soul of kindness to him in war time, but we had no time to look for them. A few permanent structures remain as reminders of the American army, but most of the temporary ones have disappeared. To an American traveler in France an occasional flat or freight car, an ancient motor truck, a few mules are also reminders of the American army. And this reminds me that I could not account for a couple of pacing horses I saw in Ireland. I never saw a pacer in England, Scotland or France but in Belfast and later in Dublin saw a genuine side-wheel.

We stopped a while at Blois to see the historic Chateau. Here the Duke of Guise was foully murdered by the order of his King, Henri III. And when the King saw his victim's body lying on the floor he said, "He looks bigger dead than alive." Most men look that way, perhaps, for we see their human weaknesses in

ATWATER KENT RADIO



WHEN another Christmas rolls around—and another—and another—your family will still be enjoying this beautiful and sensible gift.

2,000,000 families have Atwater Kent Radio. Many of them made their purchases last Christmas. "We felt this was the thing that would please the whole household—now we know," they say.

You, too, want entertainment without trouble. You want to hear good music and good talks—you always get what you want from "the radio that keeps on working." Atwater Kent Radio is famous for dependability as well as tone and range. 222 factory tests or inspections of every set, plus 26 years' experience in making things that will work, insure constant performance.

All-electric

If you have electricity from a central station, there are several Atwater Kent models you can operate right from a lamp socket. Some of them are table models, to

be used with a separate speaker. If you prefer an all-in-one cabinet set, with receiver and speaker combined, the dealer will let you try the wonderfully compact Model 52. They're all made wholly by Atwater Kent in the world's largest radio factory—as big as a 15-acre field! The dealer will advise you as to which model is best for your location.

Modern battery sets, too

"We haven't electricity, but we want good up-to-date radio just the same." Of course—and no reason why you shouldn't have it! Atwater Kent battery sets have the 1929 refinements. You'll recognize them when you listen. Your choice of two models—one for average conditions, one for unusual "distance."

Either kind—all-electric or battery—gives you the best in radio at a moderate price. See an Atwater Kent dealer about that Christmas radio—Now!

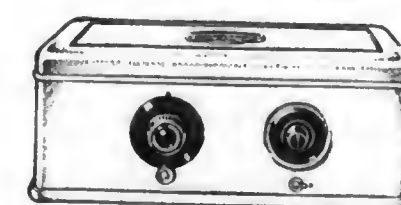
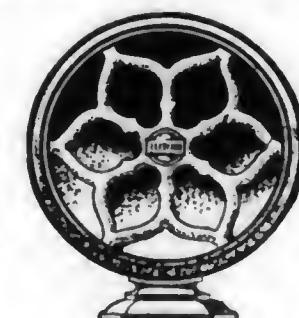
On the air—every Sunday night—Atwater Kent Radio Hour—listen in!

Prices slightly higher west of the Rockies

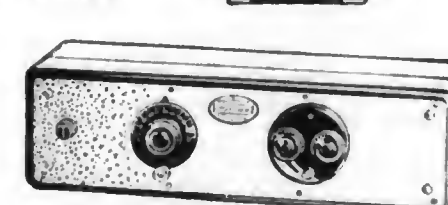
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"Radio's Truest Voice"

Atwater Kent Radio Speakers:
Models E, E-2, E-3, same quality, different in size. Each \$20.



MODEL 40. For 110-120 volt, 50-60 cycle alternating current. Requires six A. C. tubes and one rectifying tube, \$77 (without tubes). Model 41 D. C. set, \$87 (without tubes).



Battery Sets, \$49—\$68
Solid mahogany cabinets. Panels satin-finished in gold. FULL-VISION Dial. Model 48, \$49; Model 49, extra-powerful, \$68. Prices do not include tubes or batteries.

Only \$5.00 Down Gets a WITTE Engine
 One Year To Pay—No Interest
 ALL SIZES AND STYLES
 Will run your shop or mill, grind feed, shell corn, saw wood, pump water, separate cream and do hundreds of other jobs. *Old Power is Cheaper Than Labor.*
 Easy Payments—New Low Prices—Big Savings
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 Reading Bone Fertilizer Co., Reading, Pa.

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Fox, Coon, Mink, Skunk, Muskrat, etc., dressed and made into latest style Coats (for men and women). Vests, Caps, Neckties and other garments. Hides, Cow, Bear, Dog or any animal hide tanned with fur on, made into Robes, Coats, Rugs, etc. Hides tanned into Harness or Sole Leather. **FREE CATALOG AND STYLE BOOK** gives prices, when to take off and ship hides, etc. **TAXIDERMY and HEAD MOUNTING** Estimates gladly furnished. Send us your fur for Summer Storage in Automatic Cold Vault. **We buy raw skins such as muskrat, coon, etc., for our own use. Send for price list.**
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 and all other furs in big demand. We pay express and parcel post charges. **Be sure of highest prices; write for price list now.**
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 Famous Among Trappers for 20 Years
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WISCONSIN DAIRY LAND
 In upper Wisconsin, the best dairy and general crop state in the Union, where the cow is queen. The Soo Line Railway is settling out over land in the richly growing dairy sections at low prices. Liberal contracts, fifteen years to pay. Ask for booklet and about homestead rates.
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THE BENJAMIN FRANKLIN HOTEL
 PHILADELPHIA
 At Ninth and Chestnut Streets, in exactly the location where it is most needed—the center of commercial Philadelphia. Convenient to theatres, railroad stations, all of the great banking institutions, stores and publishing interests.
 1200 Guest rooms, faultlessly appointed. Three restaurants. Superior Banquet and Convention Facilities.
 Rates commence at \$4.00 per day
HORACE LELAND WIGGINS,
 Managing Director

Keep up with the advertisements to keep pace with progress. When answering them say you saw the ad in Pennsylvania Farmer.

NESHAMINY GARDENS
 By R. P. KESTER

ONE of the banes of the modern poultryman is chicken-pox, and the troubles which usually go with it—colds, bronchitis and roup. Roup in chickens is a bad cold gone to seed. It is the diphtheritic stage of bronchitis. That is about as near as I, a layman who does not know anything about it, can diagnose these troubles. Our flock has a small dose of colds and chicken-pox, as they did last year, although there is no reasonable excuse for their having them. By letter and conversation I learn



that the troubles are general and almost annual.

I don't know whether mother and grandmother, the poultrymen in their respective families, were troubled with these things in their flocks. But it is altogether probable that modern practices of breeding and keeping poultry, and the more intensive methods, have provided the opportunity for the development of these troubles as well as many others. Farm flocks had free range winter and summer, got most of their living by acting as scavengers and were helped out in wintertime by having whole corn thrown to them—sometimes shelled but often not. Nobody knew how many eggs they laid in a season, nor which hens laid them, but the egg money was clear velvet, so farmers thought.

My first hobby was chickens. When about twelve years old my grandmother gave me a dollar to send for a setting of Brown Leghorn eggs. Luck was with me and Biddy hatched out ten pullets and two cockerels from the thirteen eggs. I gave them intensive care and fed them a mash of corn meal and water regularly. One morning luck deserted me, for when they were about two-thirds grown I found when I went to feed them that a weasel had killed all but one cockerel. I don't like to harrow myself to this day by recalling that experience, but it is a fact that no loss in after life struck such a blow to me as did the loss of my first flock of poultry.

But it is no doubt necessary for us to begin early to learn how to bear up under disappointment, just as we must develop strength of mind and body by exercising them. Because of the necessity for developing these qualities in character, I am not sure but the modern efforts of parent and teacher to make childhood entirely carefree is a mistake. The human race is yet too young to hope for freedom from mistakes and trials, and the sooner we become somewhat inured to them the more we can enjoy life, at least some of it. The next brood of chicks I had I placed in a weasel-tight pen.

In looking over a statement issued by the Department of Education recently, showing that the cost of education per pupil in Pennsylvania ran from \$43 to \$90 in the different counties of the state, I could not help but call to memory some former figures. The first term of school I taught was five months in length. That was the last year for that length of term, as it was extended to six months. I was a product of the five-month term, plus a term at summer school. I was paid \$30 per month. The coal and kindling cost ten dollars for the term, and the books for re-

pupils, making the cost per pupil about five dollars. I am not finding fault with modern customs, nor casting any aspersions, but I am within my rights when I ask if the modern product of the schools is nine to eighteen times as smart as the boys and girls of that day. The answer will depend on whom you ask.

Readers may remember that I recently wrote of the difficulty, not to say the impossibility, of inducing little three-year-old Buddy, our youngest grandson, to eat spinach and carrots. My friend Howard Mitman, on reading it, wrote the following as a part of a most interesting letter. Those who have read Mitman's writings will recognize his inimitable style: "Verily, I am shocked, disillusioned, not to say disgruntled. I have just read your amazing 'piece' in the P. F. and your words fail me (as you may notice) to voice my disappointment in you. I have thought all these years you were a well-balanced, kindly fellow; I find you, on your own testimony, I find you standing supinely by (great word, that, 'supinely,' don't you think?) and letting a female of the species inveigle, browbeat and bamboozle a three-year-old into eating spinach! Spinach, do you hear? Spinach! Also, horsefeed, by some called carrots! What is this world coming to! Spinach and CARROTS! and a three-year-old! And a big hulking granddad meekly permits the atrocity and shamelessly makes 'copy' of the tragedy. I greatly fear you were too long in that City of Brotherly Love for your own good; at least for the good of the mite of a three-year-old. When next you see him, if you have the nerve to look him in the face after this, give him my sincere condolence because of the tribe he is compelled to travel with, and teach him this little 'piece' I have written for him. Spinach and carrots! Why not alfalfa?"

"I'm a tiny little chap. Just the size for mother's lap. An' I love her very dearly, don't you see; But we often have a fight. Whether mornin', noon or night. When she tries to force 'er spinach onto me.

"Though a very little codger I'm a famous spinach dodger. As I've heard my big old Grand-dad say, For it's neither mine nor sweet, An' I do not care to eat. What is not as good as green alfalfa hay.

"I am only three years old— That, at least, is what I'm told— And my Grand-dad says I've got to eat to grow; I am sure when he says that He is talkin' through his hat. An' I think it's very mean to fool me so."

A BOY'S POPCORN
 I THINK I have some nice popcorn. One ear is 934 inches long and has 16 rows of well-filled grains. I am a boy, nine years old, go to school every day. I would like to hear if this corn can be beat.
 Harvey Recknor.
 Somerset county, Pa.

CROSS-BRED PIGS
 AN Iowa Experiment Station report states that cross-bred pigs, sired by a Poland-China boar and out of Duroc-Jersey sows, this past year far out-distanced their pure-bred half brothers and sisters in gain. When they were six months of age the cross-breds weighed an average of 199 pounds each and the pure-breds 167. The cross-breds and pure-breds had the same mothers and were fed similar rations, indicating that the cross-breeding was



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The Skinflint Who Took the Farm Back

By FARM LOAN AGENT



MAN who had a nice little plan to buy a ten-thousand-dollar farm and get a loan on it for three-fourths of its cost was amazed to find that the United States government is not a benevolent old uncle anxious to see people succeed. He explained that he had bought a farm like that some years back and the old skinflint who sold it to him at an outrageous price had foreclosed the mortgage and had taken it away from him. He had much to say about the injustice of such a deal, and the oppression of the poor by the rich, but when he got through it sounded as if he had been the oppressor.

He paid one thousand down and lost it—that was the burden of his complaint. One thousand dollars had earned cash! And not only that, but his hard work and his interest on the one thousand dollars, which at six per cent for four years would be two hundred and forty more. Luck was against the farmer and the government should come to his relief. He said nothing about the taxes he had not paid for three years, the run-down condition of the farm, the money advanced by the elderly owner for the taxes to keep the sheriff from closing them both out, and the disappearance of walks, fence posts and every available stick of wood for fuel during the past twelve months when he was stalling for time by various means.

The crowning injustice was when the former owner, the holder of the second mortgage, had taken in the farm he bid it off at exactly what the first mortgagee, the taxes and the court costs amounted to, when he might have had consideration enough to raise the bid to enough to give back to the man the one thousand dollars, seeing that he was getting back his farm. In every way he had hindered the foreclosure and pleaded for time, but when it did come he was amazed that nobody thought of his vanished cash and his hard work. Yet snugly tucked away somewhere he had twenty-five hundred dollars to pay on another farm if only the government or some other easily persuaded elderly farmer, could be found to give him another nice start.

What really had happened was that he had paid one thousand dollars rent in advance for a good farm in good condition as to buildings, plus the first year's tax. Almost any one would be glad to take one hundred fertile acres at that rent. Two hundred and fifty dollars per year plus the first year's tax. He had skinned the land, let the buildings run down, pulled up walks and pulled out fence posts for fuel and now he was wishing to repeat the performance.

Often it is a relative who takes advantage of an old man, even an own son. More than one old farmer in our section is worse than penniless because of a busy sale with a small sum down. Thinking the farm would run down worse in the hands of tenants, and not wishing to trade it for some heavily taxed town property the aged farmer is easily persuaded to sell out and take life easy. He takes a second mortgage after the nominal owner gets all he can on the land. Then when the former owner has to bid it in he finds that the carefully saved one thousand dollars and the amount the first mortgage represents at face value do not begin to pay all the costs and the unpaid interest and everything that has accumulated during the three or four years of occupancy by the man who pleads poverty or puts what he has in some relative's name for safety.

At least half the purchase price down should be the rule when women or elderly farmers part with their old homes. And year by year the only safe way is to investigate and see that the interest is paid up. And, never,



never should the second mortgage holder be persuaded to advance loans to help out in emergencies even for relatives. The farm represents his insurance against old age in ninety-nine cases out of one hundred, so if it is sold it should be a real sale. The "skinflint" who takes back the farm from the poor tenant is usually the one skinned in the transaction.

The Passing of the Bee Shed

By E. W. CLEEVES

ON many of the farms through the territory served by Pennsylvania Farmer are bee sheds. These sheds are usually about four feet high in front, sloping toward the rear, and from two to six feet deep. They vary in length to accommodate the number of hives.

With the shallow sheds, unless the back or top

A Forestry Judging Contest

By THOMAS H. BARTILSON

FEW, indeed, are the number of farmers who have not read of or taken part in a poultry judging contest, and many have judged cattle, hogs and sheep in competition. But how many have ever heard of forestry judging or been asked to select in competition those trees in their farm woodlot that should be culled out?

This novel plan for emphasizing improved farm woodlot management practices was recently used in Cecil county, Maryland, by F. B. Trenk, extension forester for that state, and aroused more than a little interest in forestry problems among the farmers who attended the demonstrations.

The real purpose of the meetings, which were held out in the woodlots of the farms visited, was to interest the farmers of the county in the best management of their woodlots and to do so in such an interesting and entertaining manner that the lessons taught would not soon be forgotten. Special emphasis was placed on the proper thinning of the woodlots to allow for the maximum growth of the sound timber they contained and for the best reproduction of trees to follow those taken out.

Following the general discussion and while the whole problem of woodlot thinning was fresh in the mind, the assembled farmers were asked to judge a block of forty trees, which had previously been tagged with numbers one to forty consecutively, putting down on a score card that had been furnished them for that purpose the numbers of the trees they believed should be cut out of the block and of those that should be allowed to remain.

While in no case did any contestant attain a hundred per cent score as compared to Mr. Trenk's culling of the woodlots, they all expressed interest in the novel way in which the reasons for woodlot culling had been presented to them. As one of them put it, "We can't all see the same thing the same way, but I believe that I have learned more about how to handle a woodlot this afternoon than I have ever before had an opportunity to learn. And it was real fun, too, even if I didn't win one of the prizes."

is removable, the beekeeper must stand directly in the line of flight of his bees, to work with them. To avoid the necessity of this rather uncomfortable if not dangerous position the deeper sheds have been built. They have room enough behind the hives for a man to stand.

Bee sheds are much used in the old countries of Europe where they are often very elaborate and ornamental affairs, many of them should be called bee palaces rather than bee sheds.

These sheds open toward the south to catch the sunshine and shut out the northeast and west winds as well as most of the rain and snow.

A good bee shed has a number of advantages. It keeps the hives dry and adds many years to their usefulness. It prevents cattle and other animals from knocking the hives over and keeps them up from the grass and weeds that often choke the entrance. It furnishes protection from skunks, hoptoads and other animals that eat bees.

These sheds were developed in that period of beekeeping when the honey-makers were kept in those dome-shaped straw baskets called "skeps" or in small wooden hives without frames. In those days a bee hive had to be small to facilitate taking the honey. The whole hive had to be lifted and set over a "sulphur match" long enough for the fumes to smother the bees. This was the only practical way to get the honey crop.

The work of taking up the bees was done in the fall after cold weather had made the bees inactive and killed all hope of more honey being made that year.

The best beekeepers marked the heaviest hives to save for "seed" and killed the rest. The only other work connected with beekeeping under that system consisted in hiving the swarms. The more swarms a beekeeper succeeded in getting the more skeps he could take up in the fall. The number of early swarms determined very largely the size of his honey crop.

In that day every swarm of bees in May was worth a load of hay. Every swarm in June was worth a silver spoon but a swarm in July was not worth a fly.

It was a simple matter to set the newly-lived swarm on a shelf in the bee shed. There was no special disadvantage in having the hives so close together that they touched. Shelves were placed one above another so a can could easily reach three from the ground. The shelf board also served as a bottom board for the hive.

This arrangement saved ground space and by adding a roof and three sides to the bee stand it became a bee shed.

For this type of beekeeping the shed was decidedly practical and economical. Imagine the work of building separate stands and bottom boards for each of these numerous little colonies and the ground space they would occupy if straw skeps were arranged after the manner of the bee hives of today.

With the development of modern beekeeping the bee shed has been left behind with the straw skep. Not that it is not a desirable thing to have but because the hives of today are so large and heavy that no man can lift them.

Swarming has gone out of fashion too. The chief problem that worries the beekeeper of today is swarm prevention. Just as a breed of hens that do not get broody is desirable so is a breed of bees that do not get the swarming fever.

The beekeeper wants to hold his working forces together to store honey instead of letting them follow their natural impulse to divide, increase their number and replenish the earth.

Three or four more colonies with
 Continued on page 22.)



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Volume 99, Issue No. 14..... Established 1877

"Glory to God in the highest, and on earth, Peace, Good Will toward Men"

VOLUNTEERS

PERHAPS the greatest army of volunteers in service today consists of the 243,247 local leaders who cooperate with extension workers, direct clubs and aid in other projects for the advancement of agriculture. They serve without pay of any kind except the satisfaction they have in helping somebody or promoting a worthy cause. They are real peace-time patriots whose service deserves greater recognition than it usually gets.

HORSELESS STREETS

THE prohibition of all horse-drawn vehicles in congested city streets recurs every time the traffic problem comes up for discussion. Now traffic experts propose to abolish such vehicles in five years and will try to amend laws and ordinances to provide for the change. Probably it will come as the demand of a vast majority, but we may expect a few interesting legal battles in advance of it.

HONEST KNIT GOODS

MANUFACTURERS of knit underwear last week approved a rule that the word "wool" shall not be used "in labeling, advertising, merchandising or selling unless the percentage of wool, by weight, contained in the garment is stated." A tolerance of five per cent in wool content is allowed, and the wool must be distributed throughout the body of the fabric. This is a long step in the right direction; also an example of the self-regulation of business which other manufacturers of wool should emulate.

THE SACRED DOE

OUR recent reflections on the sacred doe have brought in several letters denouncing us, the Game Commission and all others who believe in the killing of female deer wherever and whenever they become too numerous for their own good and the good of the community. To these and all other worshippers of the doe we venture a little advice and one question. Our advice is to keep cool until we can see the results. We are still too close to the doe season of 1928 to get a proper perspective of it. There is a deer problem which must be solved and the right way must be found by trial. No fatal error is possible when a comparatively small part of the deer herd is involved as it was this

it may indicate what that is. The question we wish to propound to these violent critics of the Game Commission is: How many deer did we have before we had a Game Commission?

POTATO PROBLEMS

THE National Potato Association holds its annual meeting in New York City December 27-28. Marketing, especially the handling of an excessive crop, is sure to be a leading topic for discussion. Regulation of production, to prevent an oversupply, is likely to be another. We don't want to discourage any effort to improve the potato situation, but we venture to predict that no workable plan will be found for the solution of either problem.

A SIGNIFICANT ORDER

LAST week the Secretary of the Treasury issued an order which attracted little attention but which means a great deal. The order directs all collectors of customs to impose an additional duty on butter shipped from Australia on or after January 1st next. Australia has advanced its export bounty on butter to 4½ pence per pound, effective January 1st, so this country as an importer increases its import duty or tariff on that butter to a corresponding extent. Those who advocate export bounties on surpluses may find something worth pondering in this case. What would other countries do if our country resorted to export bounties?

BY EXPERIENCE

HEARINGS on the Capper-Hope bill to subject private stockyards to the regulation of the Packers and Stockyards Administration, same as public stockyards, were held in Washington last week. The statesmen and many of those who support this legislation believe it will benefit producers; but there are others whose motives are not entirely unselfish, who want the trade which they think would accrue to them if direct buying through private yards were restricted or abolished. We have never believed that this or any other legislation would solve the problem of direct buying; but it might interfere with that freedom of trade which is so important to all concerned. We believe that experience rather than legislation is going to determine the method of marketing hogs or anything else. We believe further that producers are able to discern and will adopt that plan of marketing which is most profitable to them. They may make some mistakes, as all business men do, but in the end they will find and use the most economical system if they are at liberty to choose. It is impossible for anybody who has dealt much with farmers to agree with J. H. Mercer, secretary of the Kansas Livestock Association, when he tells the House committee that "American farmers are too ignorant to know how to contend for their rights and do not do so, whereas the packers are shrewd business men." We commend to Mr. Mercer, and to all who underestimate the ability of American farmers, a little trading expedition among them in which he risks his own cash.

PLANT RATINGS

MR. R. J. GARDNER of the West Virginia College of Agriculture ventures to say that "Experiments as well as the experience of farmers show that West Virginia soils have been living too exclusively on a diet of lime and superphosphate. More mixed fertilizers should be used." Probably Dr. Gardner is correct in general, not only for West Virginia but for a much wider area. But the

vest according to the needs of his soil and crops and with due regard to what plant food he has in the form of legumes or manures. The most common error in supplying plant food is too little per acre. Those potato growers who have been striving for high yields at low cost have learned and are now teaching two important lessons. One of them is the economy of applying enough plant food; and the other is the residual value of that which the potato crop may not utilize. In feeding plants as in feeding animals many of us are just beginning to learn the economy of liberality.

FOR OFFICIAL OUTLOOKERS

IN A recent radio talk Everett C. Brown, President of the Chicago Livestock Exchange, gave a system of forecasting which we commend to the careful consideration of prophets like Secretary Jardine and the sundry outlookers of his Bureau of Agricultural Economics. Speaking of the livestock market only Mr. Brown says: "I know of but one method of approximating the probable course of the market, and it is as simple as it is accurate if past performance is worth anything. Take the previous year's fluctuations and reverse them. Markets rarely, if ever, repeat the previous year's performance." The numerous tribe of stabilizers also might get something out of Mr. Brown's assertion: "Price stabilization, despite theorizing, is an iridescent dream. Rainbow chasing on the subject has been persistent these many years past, but the prize at the end of the prism has never been sighted. When that happens the fleas will unanimously desert the dogs forever."

A CORRECT COURSE

THE Dairymen's Cooperative Sales Company, the organization which represents milk producers in the many markets of which Pittsburgh is the center, has done the right thing by giving its members the facts about its work and its finances. For candor is the correct course in the conduct of cooperative organizations, the members of which are entitled to know all the facts all the time. This organization is an absolute necessity to the producers of this region. It must be maintained in sound condition if they are to have adequate representation in selling their product. Centralized buying must be balanced by the same kind of selling, and that is possible in no other way than by an effective organization of producers. The members should and no doubt will endorse the action of their representatives, noted on another page of this issue, in providing the means whereby their organization can effectively continue its work.

FACTORY FARMING

FACTORY farming, which is presented from some quarters as the solution of all farm problems, and ignored by others as an exotic dream, is receiving serious attention by agricultural engineers. In some sections of the Central West, where soil, topography, location in reference to markets and inclinations of landowners are favorable, systems of cooperative factory farming are being put to a test which should help to determine how far it can be carried. The systems include not only machinery, but soil improvement, adaptation of crops, relative advantages of different phases of agriculture and all that goes with efficiency of production. While it is a long way from these demonstrations to Pennsylvania and eastern conditions the outcome of such enterprises will be watched with interest by farmers in this territory. They may affect farming here in a competitive way, or they may be practicable some day in some sections of this region.

THE Pennsylvania State College again upheld its reputation of former years as an exhibitor of champions in the sheep classes at the International held at Chicago. Winnings included first and reserve champion on pure-bred Southdown yearling, champion Shropshire ewe lamb, first prize ewe lamb, second on pen of three ewe lambs, second on Southdown grade lamb, second on Shropshire yearling wether, third on pen of three yearling ewes, fourth on Southdown grade yearling and sixth on yearling ewe. Jack Coyne, the College shepherd, brought another honor to the College by winning the shepherd's prize.

THE Potato Growers' hospital erected on the east campus of the Pennsylvania State College during the past summer and fall opened its doors last week to the service of the students and the faculty of the institution. It is called the Potato Growers' Hospital because it was made possible by the generous contributions of the Pennsylvania potato growers who raised \$75,000 toward the cost of its erection.

THE twenty-eight county wool growers' associations now functioning in Pennsylvania have one outstanding achievement to their credit. They have established a reputation for placing on the market a good and well graded product. They have in nine years reduced the percentage of rejected wool from 12.7 per cent to 3.6 per cent. Naturally the better classes of wool offered have been improved just that much more. When we consider that more than 500,000 pounds of wool is offered by them annually, the difference in returns amounts to a large sum. The increase goes into the pockets of the producers.

THE "Old Main" building on the Pennsylvania State College campus has been abandoned temporarily. A new structure will be erected within its walls, a structure of concrete and steel in line with the times. For seventy years "Old Main" has served as the hub of activities on this well-known campus. In fact it housed the whole institution for the first thirty years of its existence. The traditions of its dormitory rooms and its class-rooms have given it a warm spot in the heart of every student calling himself a Penn State man. Even to the many visitors, its high tower and its massive stone structure have been emblematic of the spirit of culture and achievement.

IN looking over the list of 400-bushel men among our potato growers this year, I find the name of Louis K. Peters of Lehigh county, Pa. Mr. Peters now in the seventies has been growing potatoes for many years. He first came into state-wide prominence back in the year 1920 when some four or five hundred potato growers from all sections of Pennsylvania visited his farm. They saw there a wonderful potato field. It was at that time that the advisability of producing high acre yields of potatoes was discussed and the conclusion reached that in order to make money in growing potatoes we must secure good yields per acre. Mr. Peters threw out the challenge to the group that he would grow better than 400 bushels of potatoes to an acre. The fact is that in 1921 he produced 510 bushels on a measured acre and proved himself to be the champion potato grower in the state up to that time. It was at this meeting that the idea of a 400-bushel club for Pennsylvania originated. The great majority of growers still thought that such a yield could not be produced. Mr. Peters and several others demonstrated that it could be done the next year. Today there is no question about it any longer for in 1928 alone more than 300 are already reported to have better than 400 bushel acre yields of potatoes.

THE Mercer county calf club steers were judged and sold at auction at the Mercer Fair Grounds, Wednesday, December 12. A 768-pound roan Short-horn calf, fed by J. B. Tait, was the champion, and the second and third prize steers were also Short-horns. Only Shorthorns and Herefords were fed this year. Morris Schaffner of Erie was the judge. Most of the steers lacked finish, needing a longer feeding period. The first and second prize steers brought \$10.50 per cwt., others mainly \$13.25. Several heifers were sold at \$11.75 to \$13.25. McCann's of Pittsburgh and the Schaffner Co. of Erie were the largest investors. Only 34 head were offered.

A 230-PAGE bulletin which brings together for the first time the various laws of the Commonwealth of Pennsylvania relating to agriculture has been published at the request of C. G. Jordan, Secretary of Agriculture, and is being distributed by the State Bureau of Publications. The laws, including all those administered by the Department of Agriculture, as well as fence, drainage, trespass and many other laws with which the farmer is concerned were assembled by the Pennsylvania Legisla-

Eastern Farm Comments

By MILES HORST

tive Reference Bureau. This bulletin can be secured from the Department of Agriculture for 50c a copy.

The Annual Meeting of the Pennsylvania State Grange

THE 56th Annual Session of the Pennsylvania State Grange was held in the Elk's Auditorium at Williamsport, Pa., December 11, 12 and 13. This convention was one of the stormiest the Grange has experienced in a number of years. Certain groups were vying with one another for leadership, and unfortunately much of the attention of the delegates to the convention was absorbed in this contest rather than in a discussion of outstanding problems confronting agriculture in Pennsylvania.

The convention opened on Tuesday morning, December 11, at which time Master Dorsett presented his annual report. In it he stated that during the year ten new Granges were organized, six reorganized and twelve Juvenile Granges organized. He recounted the actions of the National Grange dealing with national farm relief and emphasized in particular the need of raising tariff rates on agricultural products.

While it was reported that a number of new Granges had been organized in the past year, it was also stated that the total membership of the Grange during the past year dropped 3,600. It now stands at 78,600. The treasurer's account of the organization showed a good balance on hand.

One of the features of the State Grange convention always looked forward to by the newer members are the ceremonies of the initiation into the Sixth Degree. The class conducted into this degree this year numbered more than 400.

The convention was addressed by a number of prominent men in the state. On Tuesday evening Prof. F. P. Weaver of State College spoke on studies he has made on taxation in Pennsylvania as it related to agriculture. Dr. C. G. Jordan, State Secretary of Agriculture, the following day spoke on the work of the Department of Agriculture at Harrisburg, emphasizing in particular the need of Grange support in helping to bring about adequate housing facilities for the Farm Products Show held at Harrisburg each winter. On the last day of the convention President H. D. Hetzel of State College addressed the convention on the relationship between the Pennsylvania State College and the people of Pennsylvania, particularly the rural people.

For five years the State Grange has been striving to raise the \$100,000.00 to be used in erecting a Grange dormitory at the Pennsylvania State College. The report that \$98,400 was now in the hands of the treasurer and that the remainder would be raised before January 1 brought a cheer from the delegate body that was significant of the feeling of satisfaction that this achievement was accomplished. This good feeling was further enhanced when it was announced that already the foundation walls of the dormitory were being laid down.

The Keystone Exchange was reported to have done more than \$1,000,000 worth of business the past year. It handled, for example, fertilizer to the amount of \$174,000, feeds to the amount of \$103,000, merchandise to the amount of \$322,000, and groceries to the amount of \$54,000. The Grange insurance conducted under the auspices of the Pennsylvania State Grange through 24 subsidiary companies is now carrying more than \$100,000,000 worth of insurance on farm buildings in this state alone.

The various committees appointed to consider items of Grange policy reported but very few things that were new this year as compared to former years.

The Grange went on record supporting a state program for total eradication of bovine tuberculosis from the herds of the state. It went on record favoring an increase of tariff on butter and other milk products and substitutes. On education the recommendation by the Grange body was that the state should pay 100 per cent of the teachers' salaries in third and fourth-class districts.

A lively discussion followed the recommendation that the Pennsylvania State Grange endorse the action of the Game Commission in declaring an open doe season for 1928. However, the body adopted the recommendation.

The Legislative Committee, one of the most important committees of the organization, in its report practically endorsed the entire program of the National Grange. In state affairs it recommended a

tax on capital stock of manufacturing corporations in Pennsylvania. The Committee recommended that one-third of the gas tax go to state-township reward roads. The Committee recommended stricter enforcement of prohibition measures. All of these recommendations were endorsed by the main body.

The warmest discussion of the entire session came when a resolution presented by the Bedford County Pomona Grange practically called for a discontinuance of Grange support to the Joint Committee on Rural Electrification, and also condemned Order 28 as unsound and un-American. A warm discussion followed but it was finally agreed that the State Grange endorse Order 28, and support the work of the Joint Committee.

As a result of the election E. B. Dorsett of Tioga county, will continue as Master of the Pennsylvania State Grange during the next two years. Other leading officers who will continue in office are J. A. Boak of Lawrence county, Overseer; H. G. Eisman of Erie county, Lecturer; F. P. Willits of Delaware county, Treasurer, and John H. Light of Lebanon county, Secretary; M. A. Spleen, Elk county, Steward; H. B. Phillips, Clarion county, Assistant Steward; W. B. Keemer, Juniata county, Chaplain; J. Gross Shook, Centre county, Gate Keeper; Sarah Cavin, Beaver county, Ceres; Mrs. Geo. Gault, Crawford county, Pomona; Lucy Shumway, Bradford county, Flora; Mrs. Lillian Michael, Lycoming county, Lady Assistant Steward; H. A. Harshaw, Crawford county, member Executive Committee; Isaac Gross, Bucks county, member Finance Committee; Charles Pallman, Lackawanna county, Director, Keystone Grange Exchange.

New Jersey Notes

By G. W. HARRIS

CONTROL of the Japanese beetle during the past year through community effort has brought gratifying results to the residents of Jenkintown, a suburb of Philadelphia. An educational program and spraying campaign was conducted, the total cost of the project approximating \$2,500.

Spraying started in Jenkintown on June 30th and was completed on July 30th. During 19 working days a total of 6,050 pounds of coated arsenate of lead was used to make 7,775 gallons of spray solution. This was applied to 3,806 trees ranging in height from two to ninety feet, and to 15,623 different shrubs.

Results obtained were very satisfactory, for all trees and shrubs sprayed before July 20th were free from beetle damage. While the poison was applied for foliage protection, there was evidence that a large number of beetles flew to remote places and died after having fed on the poisoned leaves. The beetle population within the limits of Jenkintown was much less than in adjacent territory, and consequently the injury to plants outside was much greater than within the borough limits.

THE Eighth Annual Chester County Farm Products Show had the finest display of potatoes ever exhibited during the history of the show when each of the 24 Chester county members of the 1928 Keystone 400-Bushel Club entered their products at West Chester on December 5-9. The many exhibits included not only fruit and general farm products, but milk, eggs, mushrooms, flowers, foods, clothing, etc. About 100 posters were exhibited as the result of a poster contest conducted for school children and Chester county people. The purpose of these posters is to teach the nutritional values of fruits, vegetables and dairy products and to show the value of an attractive farm home.

The principal speakers at the annual luncheon of the Chester County Agricultural Extension Association were Prof. M. S. McDowell, Director of Agricultural Extension work at Pennsylvania State College, and Dr. E. L. Nixon of Pennsylvania State College.

AT the annual meeting of the New Jersey State Grange at Atlantic City on December 5, D. H. Agans, Three Bridges, was re-elected Master of the State Grange and Dr. Walter H. Whiton re-elected Lecturer for another year.

ALBERT ZORN, Bridgeton, claims the title of champion apple-packer of New Jersey after winning sweepstakes in the packing contest held during the New Jersey State Horticultural Society meeting at Atlantic City on December 5. The packs of the thirty contestants were judged by D. M. James, Pennsylvania Bureau of Markets, as follows: South Jersey packers, Albert Zorn, Bridgeton, first; North Jersey packers, C. D. Ballinger, Moorestown, first; packing three bushels, Norman Taylor, Cape May, first.

How the different FISHER methods

have brought motoring luxury within reach of all . . .



The electric knife used in cutting upholstery material for the Fisher Bodies, cuts 100 pieces of fabric at one operation as precisely and as quickly as one piece was formerly cut under methods which have been superseded by the new and more efficient Fisher methods.

Body by



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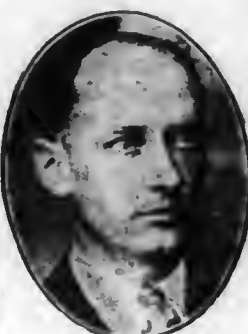
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WHEN Fisher introduced methods of standardization into body manufacture, it took a tremendous step forward in bringing closed motor car luxury within the reach of people in ordinary circumstances. Were it not for the production economies introduced by Fisher, the body of even the lowest priced car would cost today far more than the entire automobile. Description of all the production economies introduced by Fisher would fill a large volume. Even the seasoned lumber in Fisher yards, for example, is stacked on wheels and requires no rehandling. Instead of cutting out one piece of upholstery cloth at a time, a hundred are cut out. Some of the most notable savings which have helped lower the cost of the motor car, Fisher has been able to make in steel press work. By reason of such economies, Fisher builds better quality into automobile bodies and supplies to the general public, at low cost, motoring luxury which a few years ago only the very wealthy could afford.

Garden and Truck Crops

By GILBERT S. WATTS

ALREADY several 1929 seed catalogues have arrived. They are reminders that the sooner we begin planning next year's gardens the better our plans will be. If this job is put off until near planting time we are likely to be influenced to a disproportionate degree by our hopes of the future. Just now the facts of this year and the past are fresh in mind; possibly too much lettuce and radishes for the home table at the first planting and a dearth later or too few plantings of sweet corn and snap beans.



Similarly the grower for market yet carries vivid recollections of the things that did not yield maximum returns; too much of this or too little of that. Although an unmarketable surplus of any crop presents the more obvious loss it is well to keep in mind that a very real curtailment of income results when one is caught very short or without some vegetables when demand and price are good.

SOME years ago a celery grower of long experience advised: "A great deal more trenched celery is lost through too much protection than through too little." I have always kept this maxim in mind, yet I must confess I have lost more celery through the decay that follows insufficient ventilation and temperatures that are too high than I have lost through freezing. This year several sections of trenches were covered much more lightly than the best celery. Of course it would be possible to go to the extreme and incur severe losses through inadequate protection but the fact remains that most of us are inclined to err on the side of too much safety.

A NEW JERSEY reader who owns a 50-foot sash house for growing tomato plants asks for information on growing early lettuce plants to set in acre. He does not say what variety of lettuce he proposes to grow, but also 40,000 plants will be required if they are set 9 by 18 inches apart. Large growing varieties of head lettuce, particularly the New York variety, usually should be allowed 12 by 18 inches of the equivalent. Between 25 and 30 standard three by six foot loothed sashes will be needed to grow the required number of plants, depending on the method employed.

Some growers sow rather thin drills approximately three inches apart or broadcast, about February 20 and do not transplant before setting in the field. Others sow more thickly and transplant before they grow spindly. Spacings in the transplanting bed may vary from 1 1/4 x 1 1/4 to 2 x 2 inches apart. The wider spacing will enable some what better plants to be grown nearly twice as many sash will be required.

If possible maintain fairly warm temperatures, 50 to 60 degrees at night and up to 80 degrees on sunny days until the plants are well started. Then gradually reduce temperatures. Planting time approaches give more ventilation. Remove sash entirely during this stage but soak the ground thoroughly six to twelve hours before the plants are to be removed to field.

GROWING early plants for a tremendous industry in and there seems to be a keen demand each spring for really high

plants, that is plants which have been properly grown from superior (preferably proved) seed. The plant grower who puts out such plants insures himself of a continual outlet year after year. The buyer who insists on such plants, and regularly patronizes the man who supplies them, insures himself against the bitter disappointment that follows when the wrong variety or an inferior strain is planted.

Farmers Inspect Market

A GROUP of about fifty Lehigh growers visited the Philadelphia potato market, Wednesday, December 5. This was the second delegation from this county that has toured the Philadelphia potato market during the past two weeks. They were accompanied by Mr. A. L. Hacker, county agent. The object of these trips has been to get first hand knowledge of how Lehigh county potatoes compare with those from other sections and how grading affects the market price.

The growers visited the new Pennsylvania terminal and saw sacked potatoes being sold and also visited the fruit auction. A meeting was held in one of the auction rooms where the potato situation was discussed. Following this the growers visited the Second and Master Street potato yards where bulk potatoes are handled. Mr. Hacker believes that these tours will help the growers to get the viewpoint of the buyers and to help raise the standard of the potatoes shipped from the county.

W. R. W.

Friendly Talks

By Edgar L. Vincent

HOW long since you hung up your stockings? What a flood of years has swept under the bridge since that last far-off Christmas night when you crept out of bed in the quiet of the morning to see what Old Santa had left in the little striped sock you hung on the line! But you have never forgotten the mysterious rustling of the soft paper which had been wrapped so thoughtfully about the love-gifts you found when you had grabbed the stockings from the line and scampered back to bed to investigate its treasures.

Many things have crowded the Christmas Day out of our hearts and minds. Life has grown so complicated. No time to sit down and think quietly. Less opportunity to read the story of old Christmas giving has come to be so tremendously burdensome, so many of us think, and we are heartily glad when it is all over for the year.

But when we lost the Christmas stocking out of our lives, we lost a good many other things of far greater value. We all feel it. We all know it; and somehow a great vacancy has got into our hearts. We scarcely know what it is, but whatever it is, it is ten days earlier and transplant seedlings before they grow spindly.

Spacings in the transplanting bed may vary from 1 1/4 x 1 1/4 to 2 x 2 inches apart. The wider spacing will enable some what better plants to be grown nearly twice as many sash will be required.

If possible maintain fairly warm temperatures, 50 to 60 degrees at night and up to 80 degrees on sunny days until the plants are well started. Then gradually reduce temperatures. Planting time approaches give more ventilation. Remove sash entirely during this stage but soak the ground thoroughly six to twelve hours before the plants are to be removed to field.

GROWING early plants for a tremendous industry in and there seems to be a keen demand each spring for really high

Government Tests Prove Value of Shelling and Grinding Feed

12 to 26 Per Cent of Feeding Value Wasted When Corn or Oats Is Fed Whole

TESTS prove that ground cornmeal makes dairy cows 7 per cent more productive of milk and that the milk has a 14 per cent greater butterfat content. Steers make gains of nearly one-half pound more per day than those fed on the usual roughage ration and whole grain. Surprising results have been secured with calves, young pigs, poultry, and other live stock.

Tests on preparation of corn for hog feed show 5 to 7 per cent savings when corn is

Here's another reason for having a McCormick-Deering Farmall, 10-20 or 15-30 tractor on your farm. Grind and shell with a McCormick-Deering Tractor and save money.

shelled and soaked. At the Iowa State College of Agriculture hogs weighing 100 pounds at the start were fed soaked, shelled corn for 140 days and savings of 5 per cent in feed costs were effected. A saving of 4 per cent was recorded on 200-pound hogs during an 84-day test, and for old, thin sows fed in dry yards the saving was 6.8 per cent.

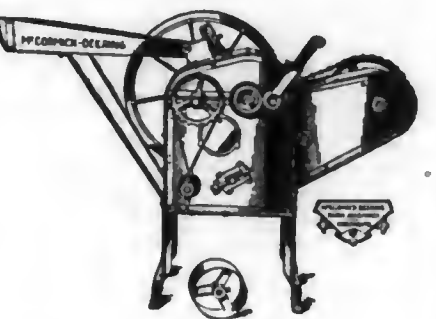
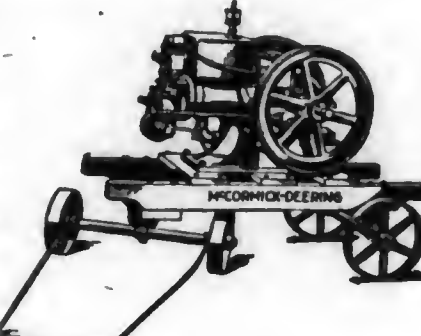
Brood sows fed soaked, shelled corn farrowed the greatest number of choice, live pigs.

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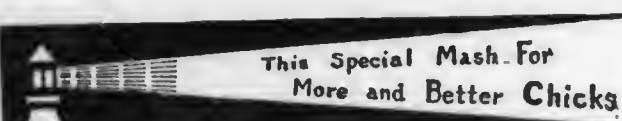
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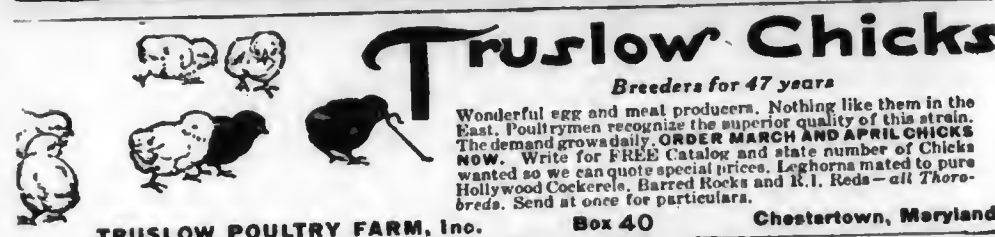
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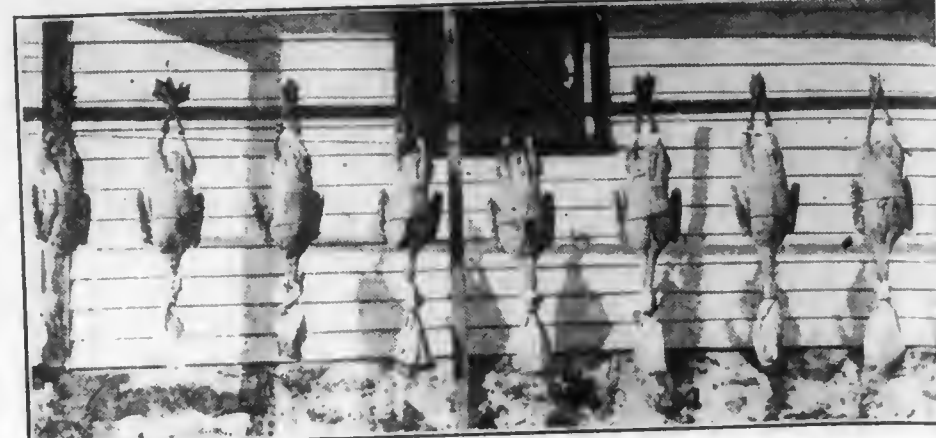
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Hatcheries that use this slogan are absolutely reliable; can be depended upon to deliver exactly the quality and breed of chicks you order, and will guarantee you a square deal. Examine the hatcheries that display this slogan.

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Please send me your book "How to Succeed with Poultry" and tell me how hatchery chicks will pay me bigger profits.
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Dressed Geese for the Retail Market; at 40¢ a Pound Each Is Worth about Five Dollars

The Christmas Goose

By R. L. SCHARRING-HAUSEN

WHILE the turkey is associated with Thanksgiving dinners, the goose is the central figure at Christmas feasts, especially among people of North European descent, among whom the Christmas goose is traditional. While the goose does not command the price in the market that the turkey does, it is much easier to raise under ordinary conditions, and the farmer with a small flock of breeders and plenty of pasture for the growing geese is practically certain to go to market with a nice lot of geese in the winter.

The gray Toulouse and the white Emblen are the most popular breeds, although other breeds are sometimes grown and there are a great many mixed or mongrel flocks to be found about the country. Unless the winter is severe breeding geese require very little attention during the cold months, picking up most of their living from the pastures. When there is deep snow on the ground they will relish clover hay, corn fodder, green vegetables and a little grain. Too much corn at this time will lead to an undesirable fat condition.

When They Start Laying

Some time in February a box of laying mash may be put where they have access to it, and about a month later eggs may be expected. As a rule one gander is given two geese, and as the goose retains its breeding powers for a long time, the matings are not broken up from year to year as is done with other sorts of poultry. In fact, geese are not at their best as breeders until they are past a year old.

It is a good plan to run the geese into a yard at night to protect them from dogs. An open shed is sufficient shelter, and during the laying season barrels with a little straw, laid on their sides, make a suitable nest. It is wise to watch the nests, gathering the eggs early in the morning or as soon as laid, as geese lay during cold weather and the eggs may be chilled. While a female goose will set and makes a good mother, a broody hen of the heavier breeds is more easily handled and will cover four or five eggs satisfactorily. If the goose is not allowed to set, she will often lay a second lot of eggs, and may be given these if desirable.

What Goslings Eat

Goose eggs take about a month to hatch, and once the goslings are out and dried off they are usually very hardy, if kept dry and reasonably warm. A little bread and milk makes a good starter, but they soon require grass or other green feed, as the goose is naturally a grazing rather than a grain eating bird. Young goslings will eat dry growing mash if they have a handy water supply, and do well on it.

Once the young geese are feathered out, they require nothing but plenty of green pasture and water to drink, aside from protection from dogs.

When cold weather comes the young geese to be marketed should be con-

finer to small runs with green pasture and fed increasing amounts of corn, which will fatten them nicely for the holiday markets. In some sections of the country buyers gather geese in enormous flocks, numbering many thousands of individuals, and put them through special fattening processes, often feeding hulled whole corn, and make them very fat to suit the taste of certain foreign elements in our population who relish goose grease in their diet.

Preparing for Market

In dressing geese for market, they should be stuck in the throat as is done with chickens, and afterwards dipped in boiling water for a short interval, holding the carcass by the head and feet, and then wrapped up in a sack for the steam to penetrate the feathers. As soon as these are loose, the geese may be hung up and picked, putting the finer feathers in a flour sack to be hung up and dried if they are wanted for pillows.

Geese worry and lose weight badly if shipped alive, and I have always found it best to sell them on the farm or dress them. Very often a little effort will enable them all to be sold locally retail, so that the full price is realized by the owner. This is especially true if turkeys are high.

Since geese make much of their growth on pasture, avoiding the necessity for feeding much grain or purchased feed, most of the income they bring in is net profit, which makes them a very good sort of bird to have on the farm. I once was acquainted with a farmer who raised a nice little flock every year, sold them early, and enough cash to pay his taxes early in December.

Nest Box Notes

NOW that colder weather is upon us it is especially necessary to take precautions against drafts and dampness in poultry buildings. Mr. Kester recently described the measures he took to break up the sweep of air in his long poultry house by putting divisions at intervals.

Sometimes when buildings are poor too much air gets in through the cracks at the back. As a temporary relief, it is possible to shut off these drafts, especially around the roosts and dropping boards, by fitting the inside of the building with sheathing paper.

There are bound to be times when the litter becomes damp, and when this occurs no time should be lost in removing it and replacing it with dry. It can stand a considerable amount of cold, if their surroundings are dry, but the combination of cold and dampness is usually a forerunner of an outbreak of sickness.

Feeds to Make Pullets Lay

By H. C. KNANDEL

WE have received numerous requests from readers of the Pennsylvania Farmer for a ration suitable for pullets now in production. There are many acceptable rations. Commercial feed concerns employ chemists and nutritional experts whose business it is to supervise and suggest efficient rations. These feed concerns, for the most part, are interested in supplying the farmer and poultryman with the best possible rations and at a price which the farmers can afford to pay. Competition has made this possible. Many poultrymen have found it to their advantage to feed ready mixed feeds, thereby saving labor. One poultryman who maintains a flock of several thousand layers stated that if he mixed his own feed it would be necessary for him to employ two additional men. Since labor and feed costs amount to approximately 90 per cent of the cost of production of a dozen eggs, these two factors are of vital interest.

A Suggested Mixture

Many farmers, however, who have their own corn, wheat, oats and buckwheat and have available at certain seasons of the year some liquid milk, ask us how to make a good ration out of it. Such farmers will find the following ration good.

25 lbs. ground yellow corn, 10 lbs. wheat bran, 20 lbs. flour middlings, 10 lbs. alfalfa leaf meal, 15 lbs. ground oats, 10 lbs. meat scrap, 5 lbs. dried milk, 2 lbs. oyster shell, 1 lb. salt, 1 lb. bone meal, 1 lb. cod-liver oil.

Start with grain—100 lbs. wheat, 100 lbs. cracked corn.

Suppose we analyze the above mixture. What is the purpose of each ingredient? In the dry mash, one-fourth of it is composed of ground yellow corn. Yellow corn is rich in vitamin A, a vitamin so essential to growth. Some rations contain as much as fifty per cent yellow corn. Perhaps this is to be desired.

Wheat bran not only gives bulk to the mixture but acts as a regulator and supplies the birds with some minerals. Flour middlings are rich in vitamin B, another essential factor in the production of poultry and eggs. Local flour middlings are to be preferred since less of the wheat germ is taken out by local mills. The common practice now employed in the manufacture of flour middlings by large feed concerns is to mix a certain percentage of standard middlings with red dog or a low-grade flour. Some mills remove the wheat germ entirely and a new product is now produced known as wheat germ meal.

Ground oats add bulk, fiber, fat and some minerals to the ration while al-

falfa leaf meal is rich in certain vitamins and high in protein.

The animal protein products in the ration are most essential if high egg production is to be maintained. It will be noted that the animal protein is furnished from two sources. For those farmers who do not have liquid milk, either dried buttermilk or dried skim-milk may be used. Both of these products are expensive yet highly beneficial. If an unlimited supply of liquid milk is available, then no other animal protein product need be used. Milk in the ration does give results not only in chick feeding but in rations for mature fowls as well.

Meat scrap, the old stand-by for years, is used to supply the bulk of the animal protein feed. To substitute a high grade of fish meal for half of the meat scrap would probably be advantageous. Oyster shell, salt and bone meal are added to provide minerals. The cod-liver oil is used to supply both vitamins A and D so essential in production and reproduction. Probably the cod-liver oil aids in the maintenance of health.

Chalk White Eggs

I bought day-old chicks from a man last spring and I know his chickens produce white eggs, but my pullets' eggs are not very white. I bought some chicks from a man up in Michigan and he claims his chickens produce chalk-white eggs, but mine are not. I feed a good mash and scratch.

E. Walter Brunhaus.

EGG shell color is an inherited characteristic. Considerable investigation work on this problem has been performed. This has shown conclusively that the male is responsible for the egg shell color more than the female. However, in the selection of birds for a breeding pen it is imperative that both the male and the female be from a strain of birds which has produced the desired colored egg shell.

In the case of White Leghorn pullets just coming into production, it is not uncommon to find eggs with slightly tinted shells. As these birds continue to lay, the egg shell color usually improves. However, rapid improvement in egg shell color can be made by eliminating the birds which produce tinted colored eggs. The only way you can detect the birds which produce chalk-white eggs is by means of the trapnest. This might be very desirable even though you operated the trapnests but a month during the year at which time you can mark those birds which lay eggs of the proper size and color.

H. C. K.

The Cheerful Plowman

Helping About the House



MY neighbor, Abner J. McGrouse, a brightly sort of jay, disdains to help about the house. "He isn't built that way." "What! Help with dishes after meals!" he coldly said to me, "Just count me out on sissy deals, for I'm grown up, you see! The man who does such work as that had better buy a dress, put flowers and ribbons on his hat and get silk hose, I guess! No rugged man with spunk and grit, with manliness and pride, would wash a dish, nor think of it, he'd sooner go and hunt! The women folks are built for that; the men, I hope, are not! Say, do you also knit and tat? You've done, but I've forgotten!"

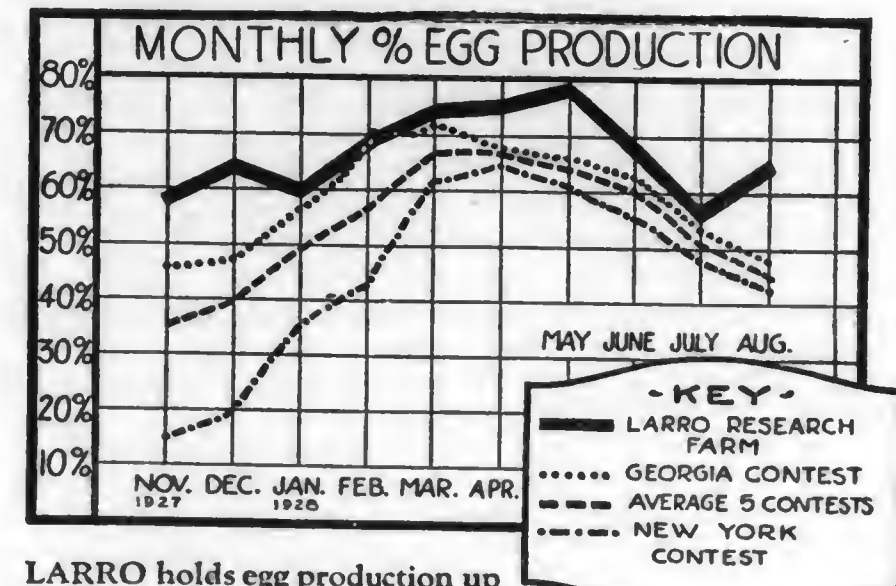
Lord pity Abner and his pride, that's what I have to say! Long, long ago, I would have died, had I 'been built

that way!" Quite often when I've time to spare and wife seems worn and frayed I grab the dish towel hanging there and try to make the grade. Then Pete jumps up and grabs a towel, and then the fun begins. We brush away all laughter, scowl, forget our pride, and, we start a race to see if we, two men so big and rough, can work just half as fast as she, and say, she calls the bluff! We make it fun, we make it sport, we have a jolly race; there's no top-heavy king, or court around our dwelling place. And, is it "manly," "grown-up," "right" for us to act that way, or should we lead beside the light while women toil away?

A. J. McGrouse may talk of flowers and ribbons for my hat, but I prefer this way of ours, I'll frankly tell him that!

J. E. T.

Astounding Proof of Larro Superiority



LARRO holds egg production up and costs down. Here is additional proof. Results from a flock of LARRO-fed pullets on the Larro Research Farm matched against results from egg-laying contest flocks in New York, Connecticut, Georgia, Maryland, Michigan showed the LARRO-fed flock way ahead. The chart gives a graphic picture. Georgia came second.

BELIEVE IT OR NOT. The profit per LARRO-fed bird was 56-10 cents more than the total egg value per bird in the New York State flock. To equal this profit New York would have required free feed and a donation of \$17.48 a ton. Georgia needed feed at \$41.64 a ton (\$26.44 a ton less than LARRO). The average of all five contests showed a need for feed at \$21.34 a ton to equal LARRO-fed bird profits.

The chart shows LARRO-fed birds maintaining high egg production over a longer period, making a better seasonal average.

LARRO GETS THE DESIRED RESULTS. No matter whether LARRO costs more or less at the start than other feeds, it gets the desired results—figured in dollars and cents LARRO-fed hens lay more eggs and show the big profits.



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DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
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WRITE for this Chick Catalog

Our Hollywood White Leghorns are headed by cockerels (dams) records 200-200 eggs per year) direct from Hollywood or by sons of Abner, English and Tancred Leghorns if you prefer. We also hatch Barred and White Rocks, Rhode Island Reds, Wyandots, Bantams, etc. Write for our new catalog. It will tell you all about our stock. Prices are attractive. Write today.

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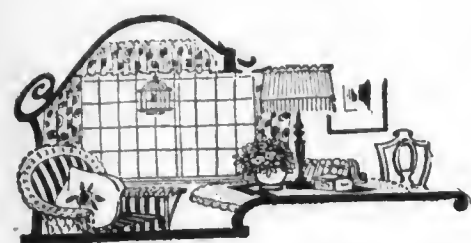
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Just what you want for profitable fall broilers. Send for low price and Catalog. Brookfield Poultry Farm, Box 171, McClure, Pa.

Chicks, Barron Eng. White Leghorns
Common Leghorns, Barred Rocks, Light & Heavy Mixed, as low as 8c each. 100% guaranteed.



The Farm Home



Nineteen Hundred and Twenty Eight Years Ago

By HEPSY NEFF

"O little town of Bethlehem
How still we see thee lie:
Above thy deep and dreamless sleep
The silent stars go by.
Within thy dark streets shineth
The everlasting Light.
The hopes and fears of all the years
Are born in thee tonight."

FOR nineteen hundred and twenty-eight years the message brought to the shepherds watching their sheep among Judea's hills; the good tidings of "Peace and Good Will to all men," has been ringing in the ears of mankind. A few have heard and heeded; the many even among those who have heard have selfishly pursued their own way. Perhaps no year of all this old world's history has been wholly without any record of human slaughter when man went to war with his brother-man. And yet the Light that shone upon the surprised shepherds has never been lost nor has it ever lighted so large a portion of the world as it does today. Dark periods there have been when hope was low and fear was high. But always suffering has brought light and knowledge has scattered darkness.

Achievements

We cannot tell ourselves too often that this year has seen humanity touch heights never before climbed. Perhaps we needed the World War to make plain to us all the terrible price of war. Perhaps only the voices of our loved ones who fell in battle could call us to the unceasing effort that resulted in a Peace Pact which soon brought together the four great nations that suffered most in those terrible years. Others have been added and it is still drawing men and nations together around council tables instead of behind machine guns. That our own government took a high place of leadership in this great movement; that it stands second to none in world councils and confidence should bring us both pride and humility. Pride for the place of confidence and humility lest the growing demands of high leadership should find us lacking in some particular.

Unless a wise father can see his careful teaching and example reproduced in his mature children he knows that, for them, progress has ceased and slipping backward has begun. His methods may not be entirely followed, but the ends of right living cannot be changed if mankind is to keep what has been gained. That the message of the angels called attention to a Way, later demonstrated by a Perfect Life, no thinking person doubts. Failure lies in not seeing that nature's laws apply to all living things; to man and animals; to plants and trees; to body, mind and spirit. Our mistake is in not taking time to learn; to see and understand the facts which lie behind what is going on all around us.

Good Books

Here is the ever-returning opportunity of the long winter evenings lying just ahead of us. More and more the tasks of community, state and nation, even of the world, demand a thinking people, an observing people, able to read into facts and events the causes that lie back of them. Pioneer days

hours of heavy toil are gone forever from our land. Machines of all kinds have brought leisure, perhaps idle hands. If idle hands mean idle minds then a down grade has already begun. But leisure must not mean either idle hands or idle minds. Be sure the two will go together. Neither health nor happiness can be built on that basis. Even this blessed Christmas time can be meager and disappointing if it remembers only the needs of the body, forgetting the needs of mind and spirit. Good books are a great asset, indeed the only counteracting influence against

empty hands and empty minds. A good book for each child will stand as a barrier between eager, young life and the constant temptation to choose the lesser instead of the larger good, the waste of time and life. Today, traveling libraries, loan libraries and community libraries bring books within reach of every one. Reading aloud by father or mother is an irresistible means of helping children to love what daddy and mother love, and there is yet no known means that equals this.

If a short book list will help to show the meaning of life, the meaning of history and the meaning of today's opportunities, here it is: "The Last of the Mohicans," "Ivanhoe," "Greek Heroes," "Dickens' Christmas Carol," "A Yankee in King Arthur's Court," "The Rise of Silas Lapham," "Recent books: 'The Revolt in the Desert,' 'Trader Horn,' 'Green Mansions,' 'Science Remaking the World,' 'The Newer Knowledge of Nutrition.'"

Christmas Popcorn Balls



Three quarts popped corn
One-third cupful white corn syrup
One-fourth teaspoonful salt

Place the carefully sorted popped kernels of corn in a large pan. Cook sugar, syrup and water to "crack stage" 270 degrees. Then add the flavor and salt. Pour very slowly over the corn, stirring constantly with a large spoon. All kernels should be evenly coated. Shape into balls. G. S. S.

Last Minute Suggestions

By GERTRUDE S. STEWART

And they who do their souls no wrong,
But keep at eve the faith of morn,
Shall daily hear the angel song.
Today the Prince of Peace is born.
—Lowell.

"HANDLE with care" should never be the slogan for toys given children at Christmas. The most beloved toy in a play center I loved to visit was a plain wooden box.

One of my most attractive gifts in 1918 was a three-quart carrier basket gayly decorated with crepe paper and packed with six glasses of delicious jelly. A country woman sent much love with that gift.

The "treasure ship" stickers on sale somewhere in your community by the National Tuberculosis Association carry the happiest Christmas greetings. Buy them and use them generously on letters and packages.

The plainest cake recipe takes on a

further adorned by making a holly wreath. Any one can do this readily if he has at hand a sharp scissors and red and green gum drops, with which to cut the berries and leaves.

Maybe one of your neighbors or friends would enjoy the Pennsylvania Farmer as a gift this year. Several of mine did in 1927.

The centerpiece for your Christmas table is easily made using nice sprays of any rich green, flat on the cloth. Set among the greens gay red candles to shed Yuletide light. Attractive holders can be fashioned in pine cones.

A nice big fat orange is the ideal topping for the children's stockings Christmas morning. It helps to prevent the doctor's call.

The sick neighbor, the shut-ins of the almshouse, the unfortunate in your community hospital, those far from home—forget them not while you make merry this happy season.

Don't Let Them Eat Too Much!

By DORIS W. McCRAY

HOLIDAY season brings "tummy-aches" and general crankiness in small folks. When callers come, or visits are made, sweets are passed. I found it easy to limit my small boy to one piece on such occasions and he was satisfied. If the hostess insisted, he was allowed to take a few pieces of candy home, to eat after the next meal.

My real trouble came with the candies he was offered when I was not with him. The children invite each other into the house, to share their sweets, and while I admire their generosity, I do not like it just before meal time. Nor are children entirely to blame. My small son came in yesterday with a huge slice of mince pie, given him by the next door lady.

A succession of meals scarcely touched showed me I simply must do something about the situation. If my four-year-old did not eat his spinach and egg, whole wheat bread and fruit, which I carefully selected for him, but obtained all his nourishment from sweets, white bread and cake at the neighbors, he would not grow tall and strong. It had not been mere chance that made his grow from a premature, skinny, dicky baby to a normal healthy two-year-old, and still stronger four-year-old. It was an abundance of good milk, oranges, eggs, cod-liver oil, whole wheat cereals, green leafy vegetables and sunshine, these are real baby builders.

Sugar

Sugar is a valuable food. It supplies heat and energy to the body quickly, and it is already partly digested. It is valuable to armies suffering from exhaustion, or for tired folks that must have stimulation quickly. Children who use up more energy in muscular activity than adults, need some sugar. But when fed in excess sugar has three distinct disadvantages. It ruins the appetite for other food. It makes the child grow fat, instead of strong and muscular. It is likely to cause indigestion. In limited amounts, sugar is a wonderful food for children. After a reasonable amount of food is finished, Sonny is allowed a pancake, waffle, piece of cake or pie, minus the crust. I arrange his plate with vegetables, small serving of meat and buttered brown bread, to be eaten before dessert. He may have second servings if desired. There is no argument. If he is not hungry enough to finish the plate, he asks for no dessert.

We solved the problem of gifts from children by having Sonny bring home the food given to him, placing it on the cupboard shelf, not to be disturbed by the rest of the family. At the end of the meal he may have it.

How soon the children take penitence in their chubby fists to the corner refreshment stand! Chocolate bunnies and Santa Claus, handed and played with first, then eaten afterward, plus countless germs, especially in lates are given to little friends. If taught young children form the habit of coming to the kitchen for a knife to divide apples and candy. They learn to eat food and play with toys—not buying one article for both purposes.

Other Sweets

Some sweets satisfy the craving for sugar, and are really good foods, namely raisins, figs, dates, prunes, dried

The Spirit of Christmas

By Mrs. A. C. MAMMEL

SARA ANN was nine years old. She went to the village school where she found a bosom friend in the person of a little girl whose name was Edith Evans. Sarah Ann's father was quite wealthy and able to give her everything she wanted, while Edith's father was very poor. But this difference did not prevent Sara Ann from loving Edith dearly.

School was out for the Christmas vacation, and as the two girls walked away from the schoolhouse together Sara Ann began to talk excitedly.

"Just think, Edith, it's only two days 'til Christmas, and then I'll have a big tree and a lot of lovely presents. I can hardly wait; can you? And it's tomorrow night we have the big Christmas tree at the schoolhouse where there's a present for every one. Isn't it fun to see what each one gets? What do you want most for Christmas, Edith? I want a wrist watch more than anything else."

Christmas without Gifts

Sara Ann was so busy thinking about her own presents and the expected glittering tree that she had not noticed her little friend was crying. "Why, Edith Evans, what's the matter? Don't you like Christmas?" she asked in amazement.

"N-not very well. Not the present part, anyway," she sobbed. "We never have a tree because they cost too much. All the presents we had last year were some candy canes and chocolate animals; and little brother got a pair of red mittens. But mother always tells us the story about the little boy, Jesus, though. I just love that story, don't you?"

But Sara Ann didn't know much about that story, so she didn't answer.

She had never heard of Christmas without lots of presents. Why, what was Christmas for if not to receive a lot of nice things?

"Don't you always go to see the big tree at the schoolhouse on Christmas Eve?" she asked.

"No, we never go," said Edith, the tears starting to flow again. "But I would just love to see it, even if I don't get any presents."

"Come and go with us tomorrow night," coaxed Sara Ann with her arm around her chum's waist. "We'll have an awfully good time, and everybody there gets a box of candy."

Helping Santa

It seemed to Edith that all Sara Ann thought about was getting something, but she promised that she would go and take little brother, also.

As Sara Ann walked on alone she thought what a terrible Christmas it must be without presents. Just then a wonderful idea came into her mind and she began to skip through the snow merrily and soon reached home. Sleighbells jingled in the air, and the twinkling lights seemed to give her a joy in the thought of Christmas that she never had before. The strains of Christmas carols coming from the church across the way made her heart swell with happiness, and she said softly, "It's Christmas time."

She ran into the house and told her mother all about Edith and her family, and when she asked if she might put some presents on the tree for them, her mother looked very happy, because Sara Ann's mother was beginning to be afraid that her little girl was going to be very selfish.

"And, mother, may Edith and her

little brother go with us tomorrow night," she begged.

"Yes, indeed," said mother. "It will be much nicer to take three children than just one."

Every one was at the schoolhouse early Christmas Eve. There was much laughter and exchange of Christmas greetings. But suddenly there was a hush, for jolly old Santa Claus stepped from behind the tree and started taking gifts from it, and calling out the names attached.

"Oh, I wonder who the big doll is for," whispered Edith, grasping Sara's arm. "Isn't it sweet?"

Santa took the golden haired doll, dressed in blue, from the tree and called, "For Edith Evans, from Santa Claus."

"Oh, no," said Edith in a frightened whisper. "It's not for me."

"Yes, it is," said Sara Ann, pushing her forward.

Edith held the beautiful doll gently in her arms, and this time cried from joy. Sara felt like crying, too. Then a darling brown Teddy Bear was put into the arms of Little Brother and his eyes shown like stars. A box of handkerchiefs was given Edith for her mother, and a nice tie for her father. Edith was so surprised and happy that she never even asked who gave them, and Sara Ann did not tell her, for it was more fun to keep the secret.

When they sang the closing Christmas anthem, Sara Ann sang as though her throat would burst. She had never felt so Christmassy before.

Her mother nudged her father and said in a glad voice: "I believe our little daughter has, at last, got the Christmas spirit."

Barnhurst Poultry Stuffing

BREAK stale white bread in small pieces and cover with cold water until it begins to soften. Drain, and squeeze dry with the hands, crumbling the bread into a large bowl. If it still seems wet, add a handful of coarse dry crumbs to absorb extra moisture. Season well with salt and pepper, plenty of finely chopped parsley, and equal parts of finely rubbed dried thyme and sweet marjoram. Only the actual dried leaves, rubbed fine between the fingers, with stems taken out, will result in the mellow savoriness loved by four generations in my family.

To each quart of the seasoned bread allow three good-sized onions. Peel, chop fine, and fry slowly in butter or sweet pork dripping, in a large frying pan, until cooked through but not brown. Any scorching spoils the flavor. Turn the fried onions into the bread and mix well. Into the frying pan put a large lump of butter, or drippings from fresh or sweet salt pork. When hot turn in the stuffing mixture and fry for at least ten minutes; half an hour is much better.

If short of butter or drippings, a little bacon fat can be used to help out. Put into poultry or breast of veal while still as hot as can be handled, so the flavor goes through the meat. Be generous with whatever is used for frying. There is no suggestion of "pastiness" about this forcemeat, and it is well worth the small amount of extra time and trouble that frying calls for.

—Addis Dunbar.

APPLE PIE DELICIOUS

Make your favorite apple pie just as usual, and before putting on the top crust, sprinkle generously with dry coconut. It gives a great surprise, and is extra good.

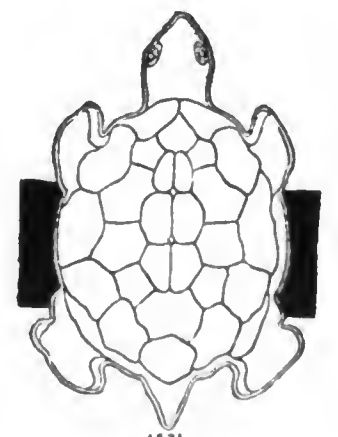
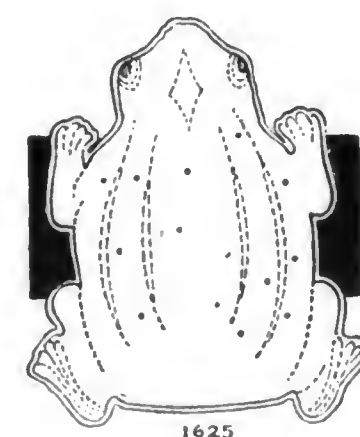
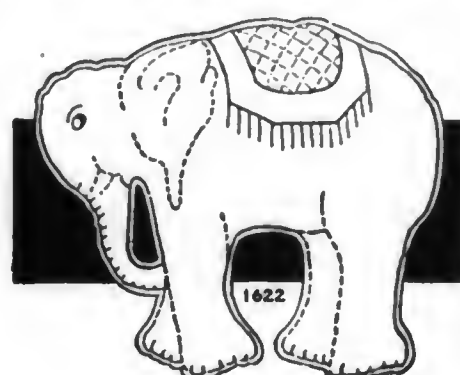
—Betsey Ford.

WHO LIVES IN ZELIENOPLE?

On my desk is an order for the Rising Sun and Harp of Erin quilting designs. No name was sent with the order. The envelope tells me some one in Zelenople is waiting for the patterns. Please send us your name. Gertrude S. Stewart.



Novelty Pillows



The attractive designs shown here, with represents the latest novelty in pillows and suitable for general use in the home. Can be obtained either on fast color velveteen or all silk rayon. When completed the pillow is about 14 by 22 inches in size. Can be obtained in the following colors: Green, maize, blue, lavender and coral.

The price without the wadding is 35c each, or with heavy wadding lining is 70c each, or on all silk rayon at \$1.40 each.

Send stamps or money order, along with your order, stating number of design. Address the Embroidery Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

'TIS EASY ENOUGH

'Tis easy enough to be pleasant
When life flows along like a song;
But the man worth while is the man
who will smile.

When everything goes dead wrong,
For the test of the heart is trouble,
And it always comes with the years,
And the smile that is worth the praise
of the earth.

'Tis the smile that comes through tears.
—Ella Wheeler Wilcox.



The Girls' Page



Let's Have a Party

By VELMA T. SIMPKINS

I CAN recall the time when I thought that giving a party was an ordeal that could be accomplished only by a general upheaval of house and family, and it wasn't until I knew Dorothy Wells, or "Dot," as her friends call her, that I discovered my mistake. "Come on over tonight and let's have a party," would be her casual invitation over the telephone. That evening we would all be there you may be sure, and there would be a party, the sort of party I had always thought took days to prepare for. Looking back now on Dot's parties I know they are the best I have ever known. There was something about them, something I could not figure out at the time, that made them perfect. Such fun as we had! Never a slow moment. And then before we knew it Dot and her mother were bringing in the simple refreshments, and long before we were ready it was time to go home.

The First Step

It wasn't until the time when Mother and Father went down to visit Aunt Margaret and I went over to spend the week with Dot that I discovered how it was done.

"Let's have a party tonight," she said on Saturday morning, and the next minute she was at the phone calling up the crowd. All the rest of that day I followed her around like a devoted puppy, so afraid was I that I'd miss a trick. I believe the first thing she did was to sit down and plan the games. "I like to start with something lively," she said, "it always breaks up the stiffness and gets the crowd pepped up. How about the one where you stand in two lines and pass things from hand to hand until the empty basket at one end is filled with all the junk that's been in the one at the other end?" She made a note of this on a paper in her hand. "The next game can be a sitting down one, something you play with pencil and paper, maybe. After that they will be ready to stir around again. Something to music, I think. Going to Jerusalem is always good, and I heard a new version of it the other day. And then after that we might try one of those guessing games where one person is it and tries to guess what the rest of the crowd is thinking about."

Everything Ready

I could not help but be impressed by the way she planned the whole evening's entertainment, and how perfectly logical she was in her planning. For it was true that starting with a lively game broke up all the stiffness, and that to alternate quiet games with those of lively action was the best way to get variety in the evening's fun. Another thing she did was to collect all the things she would need for the games, so they would be ready and waiting when the time came when they were needed. The two big baskets were found for the first game and filled with the baseballs, boxes, egg beaters and other odds and ends of "junk" as she called it that the two teams would pass from hand to hand down their lines. Pencils and paper were collected for another, the bowl of dried beans and spoons that featured in another were brought in from the kitchen, and it wasn't until everything was on hand, even to the extra chairs for going to

Jerusalem, that she dismissed the entertainment part of the party from her mind and we flew to the kitchen to look after the "cats."

There she made a great pot of cocoa that she put away in a cool place, all ready to be heated up and served in a jiffy that evening, and I helped her beat up a bowl of rich cream with which each cup would be topped. We made piles of little sandwiches which we wrapped in oiled paper and put away in the breadbox, and we also cut the luscious-looking coconut cake so that it would be all ready for the serving. On the corner of the kitchen table we piled the exact number of plates, the exact number of cups and saucers, and the exact number of snowy linen napkins that we would need for the evening. The spoons for the cocoa, the forks that the softness of the cake's icing made necessary, the two large blue plates for the serving of the sandwiches and cake, and a small tray on which were placed the sugar bowl and spoon, the tall hot-chocolate pitcher in which the extra supply of cocoa would be brought into the room, and likewise a bowl for the extra supply of whipped cream—were all added to that group.

An Ideal Hostess

Having been behind the scenes all day and having observed the clever way in which Dot anticipated every minute of the evening and prepared for it, I was naturally eager to see those plans in operation. So all that evening I was seeing and enjoying two sides of the party; the party itself and the workmanship which was responsible for its success. While the guests were assembling and running upstairs to take off their wraps Mr. and Mrs. Wells were on hand to help welcome them and to lend that air of dignity that no young girl can possibly achieve in her entertaining unless she is backed by the master and mistress of the house. There was casual chatting and the radio was turned on for a while, then when the first game was started they quietly drifted off to one of the rooms on the other side of the hall where they settled down to their usual occupation of an evening. We did not

A Library on Wheels



Once a month this truck pulls up in front of each school house in Dauphin county outside of Harrisburg and the larger towns. The children are permitted to go out to it and select the books they care to read. It is made possible by an annual appropriation of \$5,000 by the Board of County Commissioners of Dauphin county.

see Mr. Wells again that night, but Mrs. Wells appeared to help us serve the refreshments and was again on hand to say good night to her daughter's guests.

The whole evening moved like clockwork, and yet with no appearance of management. But I noticed that Dot watched us closely and we were never allowed to tire of one game before the next one was started. When it was time for the refreshments it did not take more than ten minutes to serve them. For it was simply a matter of heating the cocoa, pouring it, putting on the whipped cream, lifting sandwiches and cake from the boxes and putting them on the plates. Recalling the flurry and excitement of my own parties when my mother and I had to be out in the kitchen most of the evening, I wondered how I could ever have been so stupid. We carried everything into the living room because it seemed less formal than serving in the dining room, and we all sat around sociably, some on the floor, some grouped so they could share a table corner, and ate and talked.

It all seemed so pleasant that I vowed then and there, that from that time on, I was going to give a party whenever I felt so inclined. For what is a party but the gathering of friends for the fun of it? And the secret of its success is only a matter of forethought and planning.

The Red Headed Girl

A GIRL who is fortunate enough to possess red hair should play up to that beautiful mass of color in her dress rather than try to ignore it. A red-headed girl looks lovely in all shades of lavender and in almost all the greens, especially the lighter shades of blue-green. Navy blue is becoming, but it is the only shade of this color she should use, as the brighter shades play havoc with the beauty of her hair. The browns are good and also the tawny colors that verge on orange. For evening, yellow and the very pale shades of pink, especially that yellow-pink which is called apricot, are very flattering. A girl with shining, well-cut red hair, whose dress is chosen with a view of enhancing its beauty, will be the most distinctive figure in a whole roomful of people.

I recall such a young girl in the ballroom of a fashionable hotel. Her hair was that light red that is almost gold and which is mistakenly called, by some persons, blond. Her beautiful wide-skirted dress was a soft yellow-green and it was trimmed with wide silver lace.

Another picture I have is that of a fifteen-year-old girl, with bright red hair and skin that was white and clear. Her sweater was pink and as she stood in the sun it seem to exactly match the high lights of her hair.

A Map That Is Different

THE girl who loves to hike in winter will get heaps of fun out of making a map of her part of the country. One of those fascinating maps that every one is using now as a bit of wall decoration, and that are as far removed from the ordinary map as a piece of glass is from the crown jewels of Russia!

These new maps are full of pictures, sometimes of only a single house or building, and other times a whole scene will be drawn. Of course, they always mark places of interest. The house may have written under it some quaint inscription such as, "It was here that the pillory used to stand," or a drawing of Indians shooting from behind trees may mark the spot where one of the tragedies of early settlement

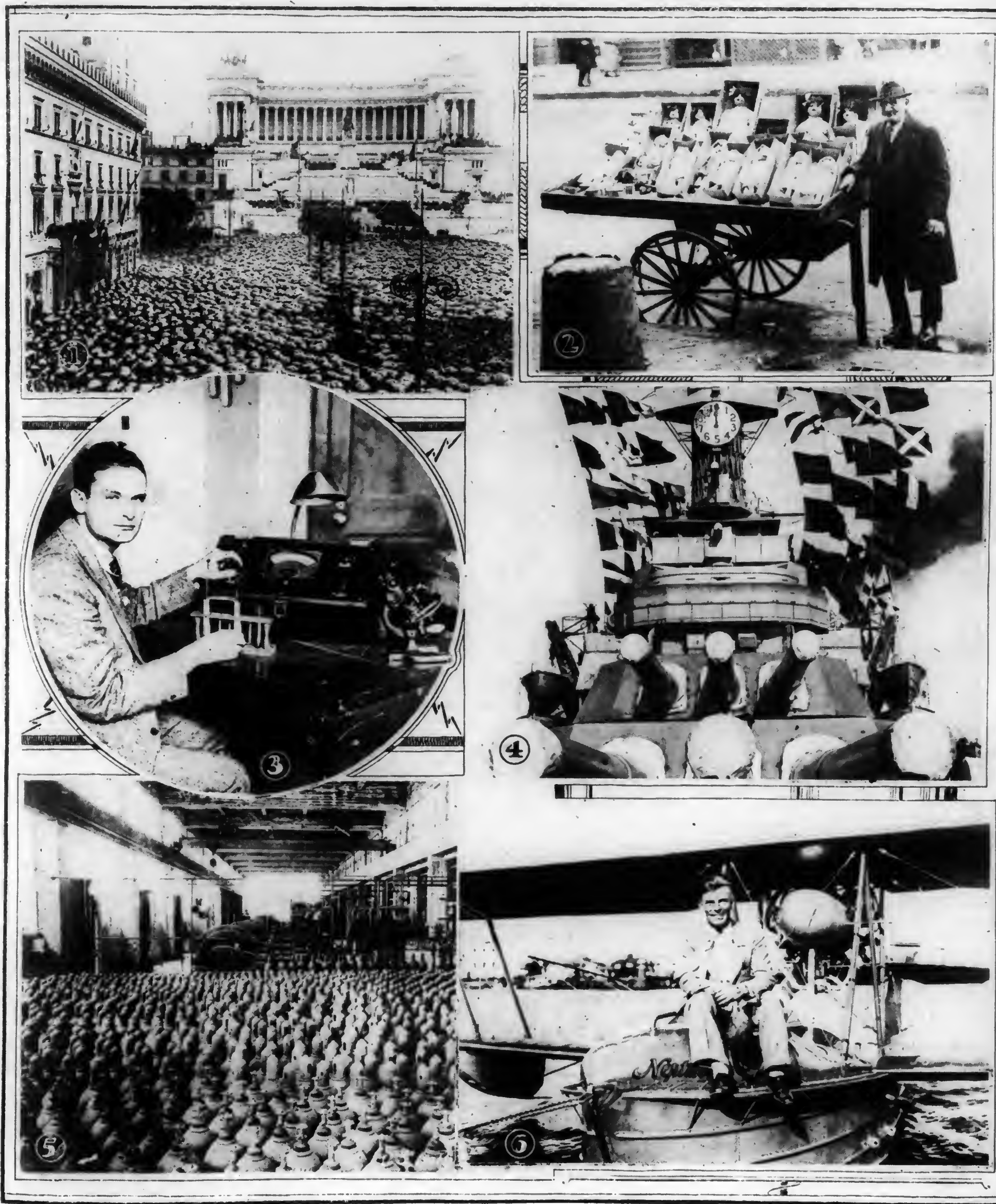
life was enacted. The roads and the hills and woods are all marked, but the whole point of the map lies in its amusing pictures and the fact that only the interesting places are noted.

A map like this would probably take the best part of the winter to make and would be a never-failing source of amusement. It should be quite large, possibly twenty-four inches square, and drawn on heavy colored paper. Yellow is a good color for the purpose, and be sure to select a paper that will not be too rough for pen and ink and yet not so smooth that pencil erasures will smudge on it. All the line work is first done in pencil and then India ink, and the pictures can be given spots of bright color which will add greatly to the effect.

The best way to get the general layout of the country is from a good automobile map. This will give you the roads and the proportions of the land you wish to depict. Then the rest will be as your fancy dictates. It will be a map that is absolutely unique. The things that go on it will be only things that mean something to you. Naturally you will wish to mark with little pictures the buildings and places of historical interest, but you will have so many other places of purely personal interest to mark too. There will be, perhaps, the houses of your special chums—"This is where Anne lives," or "Marge lives here," you may print beneath them.

And one of the very nicest things about making such a map is that it is never finished. You will keep adding to it indefinitely, and that is one of the very best reasons of all for making a large one in the beginning. For how disappointing it would be it, when another spot in the country had suddenly become interesting by reason of a late adventure, there were no room on the map for another little picture!

EVENTS CAUGHT BY THE CAMERA



(Copyright by Underwood & Underwood)

1. Photo shows 65,000 soldiers representing every unit of the Italian army gathered in the Venezia Plaza in Rome to pay their respects to Premier Mussolini. The great mass of umbrellas make it a striking view.

2. World's greatest pinhead market—millions of dollars in trade at New York's picturesque rent-free sidewalk and curb exchanges. Photo shows the doll shop, a part of the lower Second Avenue pinhead market. This is a popular stand with the kiddies.

3. Charles Weyl, of the faculty of the Moore School of Electrical Engineering at the University of Pennsylvania, with the device which he has perfected. It is an electric machine which measures instantly the hydrogen concentration of the blood in

terms of thousandths of a volt, and which is therefore of assistance in the study of cancer.

4. Flags on a flagship. An unusual view of the big guns and mast of the flagship of the U. S. battle fleet, the California, during flag hoist exercise—that is, airing the ship's "alphabet" flags, those which are used in signaling. The clock-like device is a range-finder, with ten marks on it—1,000 yards for each number.

5. Down among the natural gas fields of Texas, Uncle Sam's ever active and versatile chemists have overcome almost unbelievable obstacles to produce on a large scale sufficient helium, that rare non-explosive lifting gas that means safety to the occupants of our big military dirigibles in service and building

The finished product, helium, produced at the government's plant in Texas awaiting shipment. Each tank contains about 178 cubic feet of gas under a pressure of 1,800 pounds per square inch and resemble in appearance the familiar tanks in which are used to transport gases used for welding.

6. "World's Safest Flyer"—Photo shows Edward Niermeyer, head instructor at a flying school at Miami, who has been called the "world's safest flyer", by Andrew Heermann, Miami's director of aviation. He has more than 4,000 hours in the air to his credit and has never "cracked up" a plane. This total was computed from accurate accounts kept during the last ten years.

In Enemy Country

By James Willard Schultz

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Synopsis

White Calf, son of Many Swans, a Sun medicine man of the tribe, and Lone Woman, is telling the story. Due to some secret wrong which Many Swans has done, and self-imposed punishment, the three have left the camp of their people and are journeying toward the South in quest of a new home. Lone Woman and White Calf are sorrowful at leaving and are journeying toward the South in quest of a new home. Lone Woman and White Calf are sorrowful at leaving and are journeying toward the South in quest of a new home. Lone Woman and White Calf are sorrowful at leaving and are journeying toward the South in quest of a new home.

with it, I saw that they suddenly had real respect and liking for me. They remained with me until Sun went down behind the mountains, and then helped me drive in my band of horses and picket the fast runners around the lodge. And all the time that they were with me, they tried to be friends with Wolf, but he would not go near them.

WHILE my mother and I were eating our evening meal, we heard the Crow camp-crier going the round of the lodges, shouting to the people some order of their chiefs. A little later, my father came in and told us what it was. Two days later there had been a sun of a great herd of buffalo that had been discovered upon the plain to the east of the river; in the meantime, the hunters were forbidden going out there or even after deer upon the east side of the river, lest they frighten the herd and so make it more difficult to get the great quantity of meat that was required for the camp.

After our many nights of travel and of short and uneasy sleeps in the daytime, it was good to lie down upon our couches in our comfortable lodge, to sleep without fear of attack by some wandering war party. We were all three very tired; we slept almost at once, and with break of day we arose refreshed and glad of heart that the Crows, our one-time enemies, were now our friends. My father and I turned our horses out to graze, then hurried to the river and bathed; we returned to our lodge and the good food that my mother had ready for us. Sun was not high when men and women began coming to our lodge to visit with my father and mother and to invite them to feasts and smokes in their lodges. I went out and drove our horses to water and then to good grass. I then visited with my friends of the day before and met more of the boys of the camp. Of them all, I liked best Black Elk, the son of Dusty Bull, a boy of fine face and body and of my own number of winters, and he showed great liking for me. We were together all the long day, and, as night drew near, he went with me to bring in the horses. From my mother he had learned my name, the name I had then, the one given me when I was born.

As we were wearing camp with the band, he signed to me: "Bear Plume, it is now only two days that I have known you, but I like you very much. How is it? Do you like me?"

"Yes, I have very strong liking for you," I replied.

"Good. Let us, as Sun sees us, hears us, let us be close friends from now on, so long as we live."

"Your thought is my thought. Yes, let us be ever friends, close friends, in all things of one heart, you and I."

At that he smiled. His eyes were beautiful; almost there were tears in them; and in mine, too, I think. We embraced each other; we rubbed cheek against cheek. And as we went on with the horses, our hearts were big within us, we were very happy. Later on, in the evening, I told my mother and

and turned out to graze all but five of them: the two fast runners that we were to ride, a gentle, safe horse for my mother, and two others to load with the meat and hides of the buffalo that we should kill. We bathed and then ate our morning meal.

Sun was well up in the blue when the start was made for the chase. We were more than three hundred hunters, followed by many women with pack-horses and horses drawing travois. We forded the river, climbed the long slope of the valley, and just over the rim of the plain, charged into a great herd of buffalo there grazing and resting. They were many: cows and calves, young bulls, hundreds and hundreds of them. They swarmed densely together and ran, and the pounding of their hoofs upon the hard ground was like thunder in our ears. Our trained horses were as eager as we were in the chase; we singled out fat cows for our arrows and the horses fiercely ran after them, carried us close up to their sides, and cunningly sheered off from their sharp horns when our bowstrings twanged. On and on we went until our horses could no longer keep up with the tireless herd.

WE stopped to let them regain their wind and looked back at the way we had come: the plain was black with dead and dying buffalo; and where the chase had begun, the women were already examining the arrows in the carcasses, and so identifying the particular ones that their men had killed. And by this time the men of the camp who for one reason and another had not taken part in the chase were arriving with their women to help skin and butcher our kills, for shares of the hides and meat. My father had killed nine and I five fat cows and young fat bulls. We gave away all but two, which we helped my mother skin and cut up, and load on our pack-animals; and at that we took only the choice parts of the meat.

Upon the way back to camp my close friend, Black Elk, and other friends joined me. They envied me my part in the chase, the kills that I had made. None of them had fast buffalo horses, and so they had done nothing but help butcher the kills of their elders. They were greatly surprised when, in answer to their questions, I signed to them that nearly all Blackfeet youths of my age were owners of fast runners and killers of buffalo.

Before set of Sun that day the great Crow camp was red with lines of drying meat, and the ground was white with clean fleeced hides pegged out to dry. And as night came on, everywhere in the circle of the lodges there were the chatter and laughter of happy people, singing and beating of drums. In our own lodge, while my father filled and passed the pipe again and again, a number of guests told of their far war trails and the coups that they had counted in battles with their various enemies. But never once did they tell of the raids that they had made against our Blackfeet tribes, nor did my father even hint that he had taken more than one Crow scalp.

Pleasantly now passed the summer days. I rode, swam, hunted the deer kind with Black Elk and other not so near Crow friends, Wolf always with me, but never friendly with them. Came the Berries-Ripe moon, and, moving down across the western plain, the Mountain Crows set up their lodges in the lower part of the long flat in which we were encamped. They were not so many as their brother tribe, the River Crows; in all, not more than two hundred warriors. No sooner were their lodges up and smoke rising from them than my father went with Dusty Bull to visit their leading men. In the evening, when he returned, he told us about their head chief, Long Bow, was a very kindly, good-looking man, but old; apparently becoming childish. One eager to succeed him, Low Horn, of about forty winters, was mean of face, loud of voice, a braggart, and, according to Dusty Bull, not well liked by his tribe, but so feared by them that he would, like I, soon be named to take Long Bow's place.

On the following day, and often thereafter, I saw this Low Horn in our camp, as he went here and there to visit the various chiefs. He was, as my father had said, a man of very mean face. I noticed that he had always at his left side, suspended by a thong over his shoulder, a thin, long, quill-ornamented case of red painted deer leather; his sacred medicine, of course. I wondered just what it might be.

Came a day when my father gave a feast and smoke to Dusty Bull, Long Bow, and lesser chiefs and warriors of both Crow tribes; eighteen men in all, and among them Low Horn of the mean face.

(To be continued.)

father of the cow of friendship that we two had made, and they were glad.

We had been told that, on the following day, there was to be a great chase. So, early the next morning, my father and I watered our horses

Christmas for Cousin Augusta

By Hilda Richmond

MRS. HENRY TREDWAY put up her work-worn hand as if to ward off a blow. She knew before her husband opened his lips that he had something to say that he did not like to tell her. "Not the children?" she said rather faintly as he hesitated.

"Not the children, Kate. It's Cousin Augusta! She's made up her mind at last—or rather been forced to it—to go to the Lakewood Home, and she wants one more Christmas in the old house before she lets it go. She's tried all the others, the ones who could afford it, and now comes to us as a last resort. And, Kate, if you don't feel that you can do it we'll say so plainly. After all at her age one more Christmas celebration should not count so much. She's had her day, and we ought to think of our children. Surely you've sacrificed enough for your relatives and mine to be selfish, if you can call it that, for once." But even as he spoke he knew his wife would rise to the occasion as she had done so many times before, and try to give the childish old lady her heart's desire before she had to leave the shabby old house where she had been born, and where she had lived ever since.

"It will be a disappointment to Harriet and John, but they'll bear up," said Mrs. Tredway. "We had planned for a real Christmas just for ourselves this year, but maybe next year we can manage it."

"I'm going to make one more effort to locate Hugh Baxter before I give up," said Mr. Tredway firmly. "It is his place to take care of the situation seeing that Cousin Augusta spent her money freely on him when he lived with her. A traveling man told me last week that he knew of a Hugh Baxter out in Idaho and gave me the address. I'll see what he can do. You know the Home requires that Cousin Augusta have a black silk dress and other new garments before they admit her, and she's looking to us to get them for her."

"I'll have to go and see Helen about the dress," said Mrs. Tredway with a sigh. "I'd just as soon take a dose of poison, almost," she added with a wry smile, "but silk is so expensive, and Helen always buys good things. I could make it over and nobody would know it was not new."

They waited until the eleventh hour to go to the shabby old house, partly to give Cousin Augusta a chance to divide up her shabby things and have some time alone, and partly for reasons best known to Mrs. Tredway. Money was never plentiful in the Tredway household owing to the fact that the two children were in college, and Mr. Tredway's uncertain health kept him from promotion, but Cousin Augusta who knew the amount of his salary felt that they were rolling in wealth. Not only Helen Tredway Orton had side-stepped the responsibility of the black silk dress, but all the other female relatives as well. Helen had confided to her sister-in-law that she always sold her used clothing since times were hard and money scarce, but her sister-in-law looking at the elegance of the home and noting the gleams sparkling on Mrs. Orton's manicured fingers felt that money could hardly be as scarce as represented. But time was worth much to her, so quietly she left the house resolving to do one more winter with her shabby cloak and see that the black silk was purchased as soon after Christmas as possible.

"YOU go and sit down, Cousin Augusta," implored Mrs. Tredway. "You must be tired from all this packing."

"Not a bit of it," said the old lady briskly. "I just dote on baking when things are plentiful." She seized the cream bottle and recklessly measured out a cup of the expensive fluid for the cake she was making. "O dear! There comes the boy with the turkey, and it isn't half large enough! Here, boy, take this right back and get a fifteen-pound bird. Christmas is Christmas and there must be no skimping."

Mrs. Tredway could have wept as she saw the rich food prepared by Cousin Augusta's capable hands. "Oyster dressing for the turkey," said the old lady. "I want to remember my last Christmas in my old home. If only Brother Hugh could be here! I wrote to him at his last address but have received no reply. What do you think about plump pudding, Kate? Christmas doesn't seem complete without it."

Mr. Tredway came home from the office at that moment and beckoned his wife into the living room leaving

Cousin Augusta looking up her favorite recipe for pudding. "Worse and more, Kate!" he groaned. "Cousin Augusta contrived some way to send Hugh enough money to come here for Christmas, and they'll be on hand day after tomorrow. He says she can't be so hard up if she has money to send him. He's married and has three children, and they're all coming."

"That accounts for the missing mahogany furniture," said Mrs. Tredway. "Foolish, foolish woman! Well, when Hugh has taken the last thing, and she is in the Home there will have to be an end. Talk about merry Christmas, Henry, I feel like running to the woods for the day. By the time Cousin Augusta gets through with her Christmas cooking there won't be a dollar for that black silk."

Christmas morning was as clear and fine as heart could wish, and even the disappointed Tredways had to rejoice with Cousin Augusta's happiness in seeing the brother she had reared almost as a son when their mother died. No matter what Hugh Baxter had been or was she received him with open arms and cried over his shabby children as if fairly melted with delight. It would have been a hard heart that could have been indifferent to her perfect happiness that day. Fortunately she had saved some of her old-time abundance of table ware, and the feast was all that heart could desire from the big turkey to the perfect plum pudding served on the thin old china and time honored silver.

"I DID intend these things for you, Katie," said the old lady, "but now that Hugh is married and has such children of course they will have to go there. I do wish I had something for you, but you know I've been forced to sacrifice most of my best things."

In her childish delight Cousin Augusta would have all the relatives invited once more to "see dear brother Hugh" but to the last one they made some excuse. Hugh Baxter had wasted his sister's money and then had the nerve to say that she would be well off and happy in a charitable institution, so they wanted none of him. It was hard for the Tredways to be hospitable and kindly, particularly when the man who was still youthful and still handsome and abounding in health boasted of the money he had made and lost in the West.

"Henry, if you had what I've wasted you'd count yourself rich," said Mr. Baxter. "It's all a kind of gamble, the mining game. I've seen the time when

I could buy and sell Mother's whole bunch of relatives, and then I've seen the time when I didn't have the price of a meal in my pocket. But it's a great game!"

"It must be," said Mr. Tredway coldly. "You people here in this part of the country are hide bound—running in a rut," went on Mr. Baxter. "You're afraid to take a chance. Folks in the West say that the folks back home are only half awake, and sometimes I believe it. You take yourself for example—you've got the same job you had ten years ago, and count yourself lucky to have it. I've hopped from pillar to post in that time and have seen a good part of the world. It's a great—"

"Dinner is ready!" said the aged hostess beaming at her brother from the doorway. "Hugh, dear, you take the head of the table. It looks like old times to see you carving once more."

MRS. TREDWAY could not help thinking that it looked much like old times since somebody else had always been forced to pay for the food that Hugh Baxter carved. She felt that there was nothing of the Christmas spirit in her heart except that she was glad Cousin Augusta was to have such happy recollections of the last Christmas in her shabby home. Even with the best of the furniture sold, and many of the familiar keepsakes missing the old house was still dignified and handsome with its Christmas greenery and the fine well-spread table.

"A most delicious dinner, Augusta," said Hugh when at last no one could eat anything more. "How many a time when I've had bread and cheese on Christmas I've thought of your abundance."

"Poor Hugh!" said Mrs. Augusta Tredway with tears. "Poor, poor Brother. I pray that never again will you have only bread and cheese for your dinner on Christmas or any other day."

"Well, if I do, Augusta, it will be your fault—yours and Margaret's," turning to his wife. "The fact is that I've settled enough money on the two of you to educate the children and take care of you all if you should live to be one hundred. And you must not give any of it to me! I'm a plunger and I know it, but I want you women to hold on to what you have. It gets in my blood to take chances, but you must not."

"I—I don't understand," faltered the old lady. "I—my last cent is gone, Cousin Henry provided the things for this dinner."

"Yes, but that's because you don't know how well off you are," said Mr. Baxter indulgently. "Henry," he said turning to his cousin, "forgive me for playing this little trick on you and your family. The fact is I'm a rich man, and these shiny clothes and broken shoes are a part of the Christmas play. When your letter came the temptation to palm myself off as the usual poor relation was too great, and we all got ourselves these outfits to come home in. I wanted to see how the home circle would receive the black sheep."

"Well, to tell the truth, Hugh, we were not very cordial to you," said the relieved Mr. Tredway. "Do you know what I'd have done in your stead, Henry? I'd have closed the door on a man who would let his sister accept charity. You all know how I wasted her means when I was younger, and how the love for wandering got into my veins. You've treated me royally, and I thank you for it. And now, though it is Christmas day, I want to talk business a little. The rest of the family will soon be here, and there will be no chance. I want you folks to take charge of this house and Augusta—see that she's well taken care of and all that. I have big business interests in the West and can't stay here. You'll have a salary for looking after her property. Henry, and your wife will be well paid for ordering the house. Let her spend freely on herself, but don't let her give any of it to me if I get so hard up I won't even have bread and cheese. That's what I tell Margaret, and she must obey, because she promised. There must be somebody in the family with a level head, and I know my failings. I'll risk my last cent on a forlorn gold mine, but the rest must not."

"That sounds good," said Mr. Tredway. "Let us go into the parlor and discuss the matter, though there really is no haste as the other members of the family all excused themselves from coming."

"O, they'll be here," chuckled Mr. Tredway. (Continued on page 23.)



Christmas Memories

SARA LOW



THE tree was very tiny. The trimming far between, And lonely candles twinkled At branches bare and green.

A doll with bright red bonnet Sat 'neath the tree in state, A home-made cradle rocking Did hold her sleeping mate.

A happy little maiden Devoted them with her eyes She scarcely dare to touch them, So great was her surprise.

She'd seen so many dollies, And wanted them so much, Her hands had ached to feel them, But those she dare not touch.

But Ma had said that Santa Would think of her this year, Sometimes he hadn't found her, He'd missed the house, oh dear!

And now that he had found it He never would forget, And she had her own dolly To rock and hug and pet.

In all that crowded city With streets no gay and bright No other child so happy As that wee girl that night.

And when at joyous Christmas time She had the power to give She thought of those whom Santa misad That peace on earth might live.

Mr. Tredway came home from the office at that moment and beckoned his wife into the living room leaving

Farmer's Business Letter

THE final crop report, issued last Friday, did not show much change from estimates issued a month and two months earlier. Combined yield of the five leading grains was placed at 5,500,873,000 bushels, compared to 5,178,000,000 bushels last year, the increase being 423,000,000 bushels. Oats accounted for the largest share of the increase.

Aggregate value of crops was placed at \$8,150,002,000, a decrease of \$66,511,000 as compared to 1927, estimated value. Valuation includes grains, fruits and truck gardening.

The corn crop is estimated at 2,839,959,000 bushels, against 2,763,003,000 last year. The government cut the crop 36,000,000 bushels from the November returns. There was a reduction of only a little more than 1,000,000 bushels in the wheat estimate. Winter wheat estimates were not changed to any extent. Oats were cut down around 3,000,000 bushels, and barley raised 6,000,000 bushels, as compared with previous returns. All crops with the exception of rye were above last year's.

The yield per acre of all wheat is 15.6 bushels as compared with 14.9 bushels last year. Corn yield was about the same as the year previous, 28.2 bushels, while oats, there being a large increase in production on a considerably smaller acreage.

The wheat crop of 902,749,000 bushels increased 31,000,000 bushels over last year. The crop of durum wheat was the largest known, 92,777,000 bushels, with a yield of 13.2 bushels. The average of corn harvested was 100,761,000 compared with 102,380,000 acres reported planted in June, which the trade claimed was too large.

The table gives final figures:

Crop	Year	Average	Production*
Corn	1927	98.363	2,763,093
	1928	100.761	2,839,959
Winter wheat	1927	37.723	552,747
	1928	36.179	578,964
All wheat	1927	58.784	878,374
	1928	57.724	902,749
Oats	1927	41.941	1,182,304
	1928	41.733	1,149,531
Barley	1927	9.576	265,882
	1928	12.539	356,808
Rye	1927	3.648	58,164
	1928	3.444	41,766
Grain, sorgho	1927	6.723	137,358
	1928	6.497	142,333
Cotton, bale	1927	40	12
	1928	45	14
All hay	1927	75.698	123,827
	1928	70.919	105,453
Potatoes, white	1927	3.476	402,741
	1928	3.825	462,043
Sweet potatoes	1927	9.933	94,112
	1928	8.10	77,661
Tobacco	1927	1.584	1,211,009
	1928	1.912	1,373,501
Apples, total	1927	123.093	184,020
	1928	126.017	184,020
Apples, com.	1927	35.463	45,463
	1928	38.574	48,574
Peaches, total	1927	18.373	23,783
	1928	2.605	2,605
Grapes, total	1927	2.605	2,605
	1928	2.636	2,636

*In thousands.

Grain prices made small gains this week. Demand is good but offerings are large.

Cattle Market Hit Hard

It was another hard week in the cattle market, with steers 75c to \$1.25 lower, butcher stock 75c to \$1.50, calves showing a decline of 2c, and stockers and feeders 50 cents lower. Receipts were liberal, close to the largest of the year for one week and quality was plain. The average price of steers this week at \$12.70 was lowest of the year since the week of March 24. Top of the market this week was \$17.25, but bulk of sales were at a range of \$11 to \$14.35, with some plain steers of weight but not much finish as low as \$11.25 to \$11.50.

According to the government report issued this week the total movement of stockers and feeders for the five months, July to November, this year was 36,229 per cent larger than for the same period last year and about equal to the movement in 1927 and 1926.

"While there possibly has been some increase in the marketings of short fed cattle this year compared to last," said the report, "this increased movement of feeder cattle indicates an increase in feeding in the Corn Belt this winter. Reports from feeders in these states also indicate an increase. Reports from most of the western states indicate a material decrease in

cattle feeding this winter compared to last."

In the Hog Market

Receipts of hogs this week were not quite as large as last week, or the same week a year ago, but runs were heavy the fore part of the week and prices sagged, with some recovery later. Average price for the week was 15 cents lower, at \$8.55, lowest since the week ending April 7.

Eleven markets had 772,000 hogs this week against 821,000 last week. Shipping orders were again light, taking only ten per cent of the hogs received at Chicago, against a normal run of around 30 per cent.

Lambs Higher

With light receipts the lamb market gained 25 cents this week, with sheep of some kinds up even more. Average price of lambs this week was \$13.65, against \$13.15 a year ago and an average of \$13.05 for the same week during the past five years. Top lambs brought \$14.25.

A government report issued Friday stated that the number of feeding sheep and lambs inspected through markets into the Corn Belt states in November, 1927, and was the largest November movement since 1922. The total of these shipments into these states for the five months, July to November, this year, was about 12 per cent larger than for this period last year, but five per cent below the shipments of lambs direct to feed lots in these states not inspected through markets points to a larger movement this year than last, but smaller than two years ago. Increased Corn Belt feeding is partially offset by an estimated decrease of about 300,000 head in Colorado feed lots this year.

Chicago, Dec. 15, 1928.

Eastern Market Review

THE outlook for the Christmas turkey market is uncertain. The crop was large and it is generally believed that only 30 to 40 per cent was marketed for Thanksgiving. Many dealers lost heavily in buying and do not seem willing to buy or contract at the prices that shippers and processors are asking. This means that it is probable that large quantities will be shipped on consignment.

Turkeys from the nearby states of Pennsylvania, New Jersey, Maryland and Delaware were generally in a premium in Philadelphia and New York but growers in these states lose on account of lack of care in picking and preparing the birds for market. Flimsy, unattractive packages, newspaper used for wrapping all cause discounts. Another cause for dissatisfaction is heated stock. This is caused by not allowing the birds to cool completely before packing them.

I heard of one instance where a Maryland grower had some unusually fine young hen turkeys. They had been well dressed and were packed in a barrel. He also had three old toms and these he distributed through the barrel along with the young hens. The fact that the old toms were in the barrel caused a loss of several cents a pound on the entire lot. If he had put the three old toms in a separate box his returns on the shipment would have been much larger.

Butter and Eggs

The egg market dropped sharply in New York and Philadelphia during the early part of the week. Prices of most grades of fresh eggs were 5c a dozen lower. Closely selected white extras brought 50c a dozen in New York during the later part of the week with other nearby stock ranging from 30c to 40c. Receipts of nearby eggs were very light in Philadelphia during the latter part of the week as the low price held many producers from shipping. The market showed considerable improvement and extra firsts were quoted at 44c and firsts at 42c. Some fancy lots brought a premium over these prices.

The live poultry market in New York was quiet during the latter part of the week. Receipts were more than ample and demand slow. Small chickens sold fairly well but the large sizes were dull. Fresh killed roasting chickens were rather scarce and sold readily, but ordinary chickens were drab.

The butter markets were unsettled during the week with supplies fairly ample. Buyers were conservative and were purchasing only for their immediate needs, and seemed to see no advantage in accumulating stocks, even when dealers lower-

MERCER COUNTY POULTRY ASS'N TO HOLD SHOW

The Mercer County, N. J., Poultry Association will hold its winter show in the Arena, Trenton, N. J., Jan. 8-11, 1929. The following committee is in charge of the arrangements: E. Cook, C. Lambert, R. L. Scharringhausen, A. Sked, J. O. Winner.

Cash prizes and a big line of special and merchandise prizes have been provided, and it seems certain that this show will be up to its usual high standard and create the usual wide interest among poultrymen. The show will include both Exhibition and Utility Classes. Prospective exhibitors should communicate with Roy Sked, Pennington, N. J., for further information about the show.

American Farm Bureau Federation

GRACEFULLY depositing the McNary-Haugen bill on the shelf, at least until the incoming administration has had a chance to put its farm program into effect, the American Farm Bureau Federation finished ten years' work at the Sherman Hotel in Chicago last week.

This rather startling action came as the climax of a three-day session in which a course had been used by President Sam Thompson and Hon. L. J. Dickinson of Iowa. By this casting itself free from the forces such as the Committee of Twenty-two the American Farm Bureau Federation placed itself in a position to cooperate with other national farm organizations as well as with the incoming administration.

To align itself still further with the Hoover administration the delegates adopted the report of a committee which had been studying cooperative marketing for two years and approved the establishment

of prices. Prices declined in all of the large eastern markets on Wednesday.

Potatoes about Steady

Potato prices were generally steady at the market and shipping point markets and the demand was slow. Heavier receipts in Philadelphia resulted in somewhat lower prices than were reported last week. A few fancy well-graded Pennsylvania potatoes were occasionally sold as high as \$1.50 per 100-pound sack, but the bulk of sales ranged at \$1.25 to \$1.35. Similar stock brought \$1.65 at \$1.85 per 100-pound sack in Pittsburgh, \$1.75 to \$1.85 in Baltimore and \$1.85 to \$2 in Washington, D. C. Bulk Pennsylvania stock was quoted at \$1.85 to \$2 per 100-pound sack in New York City.

The late crop states shipped a total of 6,637 cars this season up to December 8 as compared with 65,348 during the same period last year. With a record crop this season shipments are falling far behind last year. One reason for this is the entire lack of speculative demand. Dealers are not buying and storing in hopes of a price advance, and another reason is that more of the poor stock is being kept on the farm.

Apples

The holiday demand for apples has not materialized yet, but dealers are expecting that the week before Christmas will be a better demand. The market has been rather quiet in Philadelphia and New York. Fancy fruit commands fairly satisfactory prices but the volume of business is not large. The best Stayman offered in Philadelphia sold around \$3.50 to \$3.75 per barrel. Delicious at \$3.50 to \$3.75 and Yorks at \$3.50 to \$3.75. Receipts from nearby sections were moderate with Rome, Stayman and Delicious ranging \$1.02 per bushel. The sweet potato markets were steady and shipments showed an increase. Philadelphia and New York both reported a slow demand for New Jersey sweet potatoes. The best New Jersey stock brought \$2.25 to \$2.50 per bushel in New York and \$1.10 to \$1.15 per bushel in Philadelphia.

John and Anthony Rissotto, South Jersey sweet potato growers, report a yield of 300 bushels from one acre. Their ten-acre field of sweet potatoes averaged 200 bushels per acre. These growers grow a strain of the Jersey Jersey that they have been raising for 16 years.

The P. J. Ritter Canning Company of Bridgeton has announced their 1929 tomato contract price of \$20 a ton. This is an advance of \$4 over last year and came as a surprise to growers in Cumberland county, New Jersey.

of a cooperative marketing division in the Federation. This division will be primarily concerned with the furnishing to co-operators of auditing, legal and transportation services, such as are now being rendered to local cooperatives by many state federations.

President Thompson and Congressman Dickinson were backed up in their demand for agricultural legislation at a special session by Frank O. Lowden, who stated that he had great confidence in Mr. Hoover and pleaded for him to have a chance to try out his campaign pledges.

Next to the popular interest among visitors and delegates in the farm relief stand of the Federation, interest was centered on the tenth birthday celebration of the organization. This birthday celebration started with a recital of the achievements of the Federation by President Thompson and Secretary M. S. Winder and wound up with an enthusiastic birthday party Tuesday night.

Chief among the achievements reported for the past year was the healthy state of the organization. Two new state federations were represented at the annual meeting—Mississippi and New Mexico. The tenth birthday celebration had been while three other states which had been members were returned to good standing. Increased membership was reported in 21 of the 37 Farm Bureau states, Indiana showing the highest gain during the year. The net gain of the Federation in membership for the year was reported at 29,634 members.

There was a really talented array of speakers, including in addition to those already mentioned, Mrs. Charles W. Sewell, director of the home and community department of the Federation; George H. Duncan of New Hampshire; James C. Stone, president of the Burley Tobacco Growers' Association; Dean A. R. Mann of Cornell; Virgil Jordan of the National Industrial Conference Board; Dr. M. A. Stine of the E. I. Du Pont Company; and Hon. Wm. Butterworth, president of the United States Chamber of Commerce and of John Deere Co.

Another high spot of the Federation's program was the dedication of George H. Putnam of New Hampshire as the recipient of the first award for distinguished service to agriculture. Mr. Putnam has long been a leader in organized agriculture in New England and has given unselfishly of his time and energy. The choice was a popular one.

When the resolutions committee reported on Wednesday afternoon not many new features were included, in addition to the stand on the consideration of the agricultural program by an extra session of Congress. It was stated that the tariff as applied to agriculture was inseparable from surplus control legislation and the advancement of cooperative commodity marketing.

On Mussel Shoals the Federation affirmed its well-known stand for the Madden Bill providing for sale of the plant to the American Cyanamid Co.

The new things recommended included further seed legislation, requiring designation of state or region of origin and date of germination test; establishment of engineering experiment stations; elimination of propaganda from schools; transfer of Bureau of Reclamation from the Department of the Interior to the Department of Agriculture; federal regulation of buses and trucks doing interstate business; study of the possibilities of cooperative production; use of cooperative crop insurance; uniform federal traffic code; establishment of a national industry of health; representation of shippers on boards governing railway wages; granting of authority to the Federal Reserve Board to use its power in the stabilization of the purchasing power of money; regulation of correspondence schools doing an interstate business; congressional investigation of the Federal Farm Loan System; equal recognition of broad-casting stations specializing in farm programs with stations broadcasting commercial programs.

In addition the Federation reaffirmed its position in favor of rural electrification; farm fire prevention; control of the corn lobby; reforestation of marginal lands; fundamental research in agriculture; aid for farm-to-market highways; soil conservation; inland water transportation; development of flood control; retention of the Pullman surcharge; equitable parcel post rates; etc., etc.

A. J. Olson of Minnesota was chosen director to succeed Hugh Harper of Wisconsin, who did not wish to continue his term. W. H. Settle of Indiana to succeed himself. Other minority directors are M. L. Noon of Michigan and L. B. Palmer of Ohio, who hold over.

There was no general election this year the executive officers holding until 1929. Wm. C. Spargo of Dover, N. J., was the new eastern director chosen.

Walter H. Lloyd.

Livestock Markets

PITTSBURGH

Cattle

Following heavy receipts at Chicago last week and a decline in the cattle market the 40 carloads, which made up Monday's supply at Pittsburgh, was more than ample for the demand here. The market was drab at steady to lower prices. Steers generally showed a decline of about a quarter. One load of 1,240-lb. steers of quality and carrying considerable finish brought \$13.40 and individual yearlings on the choice order sold up to \$14. The bulk of good steers went at \$12 to \$12.75, lighter kinds with less finish around \$11 to \$11.50 and common to medium sort \$9.50 to \$10. Demand was fairly good for heifers. A few fancy heifers brought \$13; others \$9 to \$11.50 according to condition. Good heavy heifers were at \$11. Few good fat cows were offered. Prices ranged up to \$9.50 for the best with most good cows going around \$8.50. Bulls were about steady on the basis of \$10 for best butcher bulls and \$9 to \$9.50 for good heavy bulls.

Choice grain-fed steers, 1,200 lbs. or over \$13.25 to 14.25
Good to choice 12.75 to 13.25
Fair to good, do. 11.75 to 12.75
Plain heavy steers 10.00 to 11.75
Choice handweight steers, 12.50 to 13.00
Good butcher steers, 1,000 to 1,150 lbs. 12.00 to 12.50
Fair to good, do. 11.25 to 12.00
Ordinary to fair, do. 10.25 to 11.25
Common, do. 9.75 to 10.25
Good light butcher steers 11.50 to 12.00
Fair to good light steers 10.75 to 11.50
Common to medium, do. 9.75 to 10.75
Inferior light steers 8.00 to 9.00
Feeders Nominal
Stockers Nominal
Choice heavy bulls 9.50 to 9.75
Good heavy butcher bulls 9.50 to 10.00
Good handy bulls 9.00 to 9.50
Fair to good bulls 8.50 to 9.00
Common to fair bulls 8.00 to 8.50
Inferior bulls 7.00 to 8.00
Choice fat heifers 10.75 to 11.50
Good to choice heifers 9.50 to 10.75
Fair to good heifers 8.50 to 10.00
Common to fair heifers 7.50 to 9.50
Thin light heifers 7.00 to 8.00
Choice fat cows 9.50 to 10.00
Good to choice fat cows 9.00 to 9.50
Fair to good cows 8.00 to 9.00
Common to fair cows 7.00 to 8.00
Canners and cutters 4.75 to 5.00
Fresh cows, calf at side 50.00 to 150.00

Monday's Representative Sales

2 570 14.00 21 1242 13.40 12 1039 12.60
2 1180 12.00 6 1120 12.00 3 1020 12.00
10 1063 11.50 4 1080 11.40 2 1100 11.40
3 1120 11.25 24 939 11.20 5 1250 11.00
15 1052 11.00 8 1038 11.00 12 849 11.00
12 760 11.00 16 1090 10.75 11 908 10.75
1 120 10.50 5 1034 10.00 12 828 10.00
3 1063 9.50 6 962 9.50 2 1385 9.00
7-Mixed.

Cows and Heifers

1 1920 13.00 1 840 13.00 1 970 10.50
2 1055 10.00 2 1005 10.00 1 1410 9.00
1 1100 9.00 3 1073 9.00 1 890 9.00
1 830 9.00 1 1240 8.75 2 1005 8.50
2 1160 8.25 3 727 8.25 1 1130 8.00
1 1080 8.00 1 850 8.00 2 1085 7.75
6 928 7.25 1 1030 6.00 1 900 7.50
1 810 6.00 1 1040 5.75 2 905 5.75
3 700 5.75 2 700 5.75 1 690 5.00

Bulls

1 1150 10.00 1 1520 9.50 2 1390 9.50
1 1280 9.25 1 790 9.00 2 1325 8.50
1 1340 8.50 2 1250 8.50 1 1120 8.50
2 1060 8.50 1 960 8.50 1 910 8.50
1 750 8.00 2 610 8.00 1 560 5.50

Hogs

Fifty-five carloads made up the receipts of hogs. The market was strong to 56.10c higher than at the close of last week. Good grades sold largely at \$10.10 to \$11.35, a few heavies being good enough to bring the outside figure. Light weights sold at \$8.50 to \$8.75, while most pigs went at \$8 to \$8.25.

Heavy wts., 250 lbs. or over \$9.00 to 9.15
Heavy mixed 9.10 to 9.15
Medium wts., 180-200 lbs. 9.10 to 9.15
Light Yorkers, 165-180 lbs. 9.10 to 9.15
Light Yorkers, 125-150 lbs. 8.50 to 8.75
Pigs, 100-110 lbs. 8.00 to 8.25
Roughs 7.50 to 7.75
Stags 5.50 to 6.50

Sheep and Lambs

Receipts of sheep and lambs amounted to 18 carloads. The market was steady to strong on the basis of \$8 for best wethers. Several decks of choice lambs brought \$12.50, with heavies at \$12.50 to \$13. Fat ewes were quoted at \$6 to \$7.

Good to best wethers \$7.50 to 8.00
Fair to good wethers 7.00 to 7.50
Good mixed 6.00 to 7.25
Fair to good, do. 6.00 to 7.00
Common to fair 4.50 to 5.50
Inferior sheep 2.00 to 4.00

CHICAGO

Cattle

Chicago, Dec. 17.—Receipts were 12,000 head. Market 25c higher.
Common to fair yearlings \$9.25 to 11.00
Fair to good yearlings 11.00 to 13.00
Good to choice yearlings 13.00 to 14.75
Choice to prime yearlings 14.75 to 17.00
Common to fair steers 9.50 to 11.50
Fair to good corn-fed 11.50 to 13.25
Good to choice corn-fed 13.25 to 15.00
Choice to prime corn-fed 15.00 to 17.25
Common to good cows 6.25 to 8.35
Good to prime cows 8.35 to 10.50
Heifers, common to good 6.75 to 9.25
Canners and cutters 5.00 to 6.40
Inferior light bulls 7.00 to 8.40
Bologna bulls 8.00 to 9.25
Fair to choice butcher bulls 9.25 to 10.50
Stockers, common to fair 8.00 to 8.75
Stockers, fair to good 8.75 to 9.75
Stockers, good to choice 9.75 to 10.50
Fancy yearling stockers 10.50 to 11.50
Stockers and feeder heifers common to choice
Feeder heifers 6.75 to 8.00
Stockers and feeder cows 6.00 to 7.00
Feeder cows, common to fair 8.50 to 9.50
Feeder cows, fair to good 9.50 to 10.25
Feeder cows, good to choice 10.25 to 11.25
Fancy selected feeders 11.25 to 11.75
Milkers and springers 10.00 to 12.50
Common to best vealers 11.50 to 14.00

Hogs

With 50,000 hogs on sale the market was 10c to 25c higher.
Heavy butchers, 270 lbs. up \$8.00 to 8.90
Mediums, 225 to 265 lbs. 8.70 to 8.90
Lights, 190 to 225 lbs. 8.00 to 8.90
Selected, 160 to 190 lbs. 8.70 to 8.90
Mixed packing, 270 to 330 lbs. 7.85 to 8.30
Heavy packing, 330 to 500 lbs. 7.50 to 8.10
Roughs, 300 to 500 lbs. 7.00 to 7.70
Stags, subject 70 lbs. dockage 7.00 to 7.90
Pigs, best grades 7.50 to 8.25

Sheep

About 17,000 sheep and lambs were offered. Market 25c higher.
Wethers, all ages \$7.00 to 10.25
Yearlings 10.00 to 12.75
Western ewes 5.50 to 8.00
Breeding ewes 6.50 to 11.00
Fed western lambs 13.25 to 14.50
Native lambs 10.25 to 14.50
Feeding lambs 13.00 to 14.00

Calves

With 800 calves on sale the market was fully steady. Good to choice veals brought \$13.50 to \$17.50.

Stock Movement

Receipts for week 62,970
For previous week 58,227
Same week last year 58,738
Shipments for week 19,403
For previous week 19,066
Same week last year 21,149

Cattle Hogs Sheep

Receipts for week 62,970
For previous week 58,227
Same week last year 58,738
Shipments for week 19,403
For previous week 19,066
Same week last year 21,149

MISCELLANEOUS PRODUCE

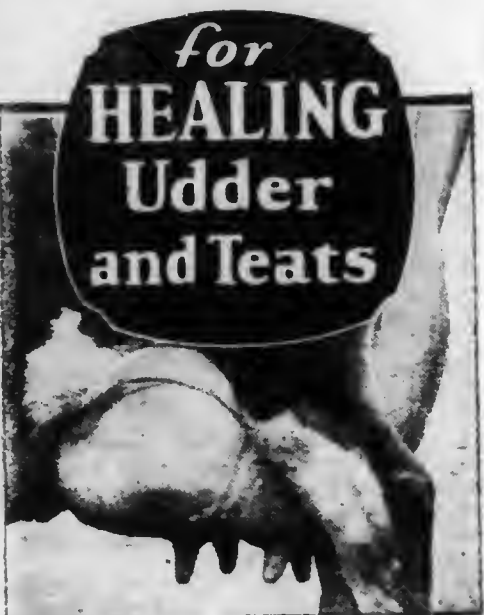
Butter.—Creamery prints, 92 score, 37½¢; tubs, 50½¢; nearby tubs, 53½¢; 54¢.
Eggs.—Fresh, select, 53¢; current receipts, 38¢ to 40¢.
Poultry.—Heavy hens, 27¢; Leghorns, 20¢; springers, 27¢; roosters, 15¢; ducks, 24¢; geese, 20¢; turkeys, 40¢; 40¢; 50¢ per pair; turkeys No. 1, 35¢ to 40¢.

Butter

Country butter, 55¢ to 60¢; creamery, 57¢ to 62¢.
Eggs.—Fresh eggs, 55¢ to 60¢.
Poultry.—Chickens, \$1.25 to 2.25 each; springers, 75¢ to \$1.25 each; ducks, \$1.50 to 2.50 each; squabs, 25¢ to 50¢ each.
Vegetables.—Beets, 8¢ to 10¢ per bunch; asparagus, 25¢ bunch; string beans, 35¢ to 40¢ per ¼ pk.; beans, lima, 50¢ per pt. box; 40¢; 40¢ per bunch; cabbage, 5¢ to 15¢ per head; carrots, 5¢ to 10¢ per bunch; cauliflower, 20¢ to 30¢ per head

Peace and Good Will

By L. W. LIGHTY



It is good business to carefully guard the organs that directly and immediately affect the milk-flow. Cuts, chaps, cracks, bruises and inflammation seriously hamper production.

For quick, certain results in healing such injuries, or for treating Caked Bag, Bunches and similar disorders, Bag Balm gives unusual results because of its remarkable penetration. By our own exclusive process we have combined a vigorously penetrating antiseptic oil with the medicated Bag Balm ointment. By striking into the tissues and promoting unusually quick healing this ointment has won an enviable reputation among cow owners.

Clean, pleasant to use; cannot taint the milk. Big 10-ounce package, only 60c. Mailed postpaid if your dealer is not supplied. Booklet, "Dairy Wrinkles" mailed on request.

DAIRY ASSOCIATION CO., INC.
Lyndonville, Vermont



Save with a Harder

The lowest prices of the year are now effective. Next month you will pay more, and later still more. Get your order in this month and save money. No deposit required. Pay on delivery or from your monthly milk checks.

The 1929 Harder Silo has many exclusive features. There's a Harder that meets your needs, at a price you are willing to pay. Write today for our Early Order Proposition.

The Harder Round Brooder House is built on the silo principle—no cold corners; no waste space. Easily erected; portable. Send for free folder.

HARDER SILO CO., Inc.
Box E Cobleskill, N. Y.



This Trade Mark and the Orange Carton Guarantee To You
GOMBAULT'S
CAUSTIC BALSAM
The safe, reliable liniment, counter-irritant or blister for VETERINARY and HUMAN treatment. Used over 50 years. ACCEPT NO SUBSTITUTE.
SCHNABEL MEDICINE CO., Sole Distributors
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THE human race has always loved festivals. In climatic conditions that stimulated activity savage tribes had many festivals. Ancient peoples had numerous festivals, but we know them only in history. No festival ever became an established institution over so large a territory with so great a number of people as that of Christmastide. Presumably the reason for this is that no other festival ever had such a fine background as this one.



Many beautiful customs have clustered around this festival time and one of the finest of all is the almost universal effort to bring joy and happiness into the lives of our fellows, particularly to those who by misfortune are deprived of the better and nobler things many of us enjoy. May this phase of the great festival expand and grow while some not so desirable disappear! Among the latter is the exchange of useless and unwanted Christmas presents. Particularly is Christmas the children's greatest institution, and well may it be so. The Man around whom all these pleasant and desirable customs cluster truly knew and loved the children. Listen to His new and wonderful words:

"Suffer little children to come unto me and forbid them not for of such is the kingdom of God as a little child shall in no wise enter therein."

"Whosoever shall offend one of these little ones that believe in me, it were better for him that a millstone were hanged about his neck and he were cast in the sea."

When Taking Stock of Ourselves

At an indefinite age people find their reserve energy decreases with the years. The learned Dr. Osler suggested they be chloroformed at sixty. Later he assured us he was joking. Some very learned men say foolish things at times and later would have us believe that is their way of cracking jokes.

But to the individual it is a serious phase of life to arrive at the age when strength and ambition will not enable a man to carry on in the management and the hard labor of the farm that has furnished employment pleasantly for years. Solomon said there is a time for everything and surely there should be a time when the farmer may lay the burden on younger shoulders.

This becomes an important matter for consideration. The farmer's home is

part of the plant and naturally has to be vacated for the successor. Unfortunately custom of the past nearly always takes the farmer to town where he has no occupation or an uncongenial one, and only too often he becomes morose and spends what should have been the best days of his life in a most unsatisfactory manner.

Happy Solutions

I have known several exceptions that point worth-while lessons. A lover of trees secured a patch of ground and built his home, spending his time growing seedlings and budding, grafting and experimenting so he had stores of information for visitors. He sold some rare trees and vines, making it a minor business proposition. I know another who spent his time in the same way with flowers pleasantly and profitably. Another was a lover of birds and he engaged in making bird houses and studying the bird requirements. It was a delightful light occupation and he

Dairymen's Sales Company

By HARRY I. BERLOVICH

WITH 345 persons in attendance at the Advisory Council meeting of the Dairymen's Sales Company, which was held at Youngstown, Dec. 7, every one of the 141 local units was represented at the session. It has been a long time since a more interesting or more open meeting of this body was held.

J. A. Matchett, treasurer of the organization, read the financial statement and called attention to the fact that for the past five years the Dairymen's Cooperative Sales Company has been operating at a loss.

"The duties and expenses of our organization have grown more rapidly than the income and during the past two years our income has been lessened to a certain degree," explained Mr. Matchett. "The increased expense is not the fault of your directors, nor of the Advisory Council who authorizes the various expenditures, but the price of an ever increasing organization and the solution of new problems coming up every day or so. We as an association, never were over financed at the best, and now the situation is critical and we must do something," he continued.

According to Mr. Matchett's figures the organization has shown a deficit, in operating expense, since 1924 of \$19,074.10 and the heaviest of that loss came last year, when it amounted to \$8,427.87.

The total receipts from commissions last year were \$38,740.06 and the refund to locals was \$10,734.49 leaving a net to the association of \$28,005.57. The net income of a year ago was \$39,836.48, more than \$2,000 in excess of the year previous.

Down on the Farm



handed a nice little business to his successors who capitalized his discoveries.

Two hard-working and successful farmers happened to delight in fishing. The one moved to the village where he slept, but most of the rest of his time was very pleasantly spent along the stream. The other one secured a location near supposedly good fishing territory and happy indeed were his days. Ever so often I would see him lie himself away with his fishing tackle early in the morning whistling like a boy. Later in the day he would come home with some fine specimens all of which had to be measured, weighed and seriously considered. But if the fates were against him or the fish were not hungry no one ever saw him return and no one could induce him to talk about those days. They were dropped out of mind and the days of success dwelled on. That man enjoyed life to above four score and ten and then lost his life by accident.

These men in the years of fruitage were useful citizens and their matured judgment was of value to their community.

We often accuse youth of not knowing what it wants, but too often mature age conveys similar impressions to observers.

The running expenses of the organization during the past year, the fiscal year ending September 1, 1928, were \$38,962.43 and would have been more than \$10,000 in excess of the receipts were it not for the miscellaneous income of the association.

This was not the first time the attention of the delegates was called to the financial situation of the organization, but never before had it been brought out so graphically.

Cause of Deficit

"We have come before you with a complete story of the expenditures and receipts of the Dairymen's Cooperative Sales Company, at the risk of considerable criticism," explained W. S. Wise, one of our directors, in telling of the financial situation. "You men as delegates of the Advisory Council have been aware of this situation for years, for every time you come here you have been given a copy of the treasurer's report—and it is this body which actually authorizes the directors to make the expenditures thought necessary in order to maintain an open market."

"Years ago when we agreed to send back to each local a quarter of a cent of the commission, we did so with the thought that the local officials would do field work and other duties which would relieve the central office of this expense—but that has not been the case."

"Directors and people from the office have been called into various localities time and time again to settle trivial matters which should never have come to their attention at all—and this costs money."

"Because we have not had the necessary funds we have been handicapped in hiring the proper sort of persons to act in executive positions in our office. It is entirely too much to ask the president of the organization to spend all his time, practically, with minor details and not permit the executive to pay the attention to marketing problems and administrative questions that he should."

A Budget

"The locals are not spending the money which is being returned to them in the proper manner. It costs more to run an organization of our size today than it did when we had but a few thousand members. Of course our income has increased, but not in proportion to the needs and demands of our members."

"However, we have established a budget and are going to live within that budget, if you authorize us to—and that means that we will be unable to send any more directors to meet with locals after another month; we will be unable to continue publishing the Price Reporter after many more months and we will be able to have only a few meetings of the board of directors—and we are going to live within our receipts this year."

"I am giving you men this information for you to think about. There is no organization in the fluid milk industry that

December 22, 1928

December 22, 1928

deducts as little from its members as a commission as does our organization.

"Another matter I would like to call to your attention is the setup of the marketing or pool department. We do not finance this but the dealers do, and they permit us to have joint representation in governing it. As a director of the Dairymen's Cooperative Sales Company I feel that we should be in full control of this department with authority to lay down the rules and regulations and to hire and fire the personnel of this department. However, we have not the necessary funds with which to do this—and it would take about \$10,000 a year to run this department—but we should have it under our control."

To Increase Commission

This report of Mr. Wise, following that of Mr. Matchett, which was given in the forenoon, brought forth considerable discussion.

"Gentlemen, our organization is in dire

January Added to "Basic Months"

THE month of January, 1929, has been added to the basic months, by special action of the board of directors of the D. C. S. Co. This means that each producer will receive as a basic 70 per cent of the average of the production of his herd for October, November, December, 1928, and January, 1929, for which he will receive Class I or basic price the balance of 1929.

Here's how to figure your basic: take the total production of the four months, divide by 192, the total number of days in that period, multiply this sum by 30—the periods have been reduced to a 30-day month—and then take 70 per cent of this sum, which will be the minimum of your basic. This ruling came after the meeting of the Advisory Council.

circumstances and we must come to its aid," expressed Carson K. Stewart of the Orangeville Local. "I am heartily in favor of raising the commissions so as to enable the association to operate more efficiently."

The resolutions committee, which consisted of two other committees in making its report, suggested that commissions be raised another quarter of a cent per hundred pounds of milk sold—and after considerable discussion this was increased to one-half cent and the directors were authorized to increase the deduction for

commissions from 1½ cents per cwt. to 2 cents.

In making his report, President Brennan just touched lightly on what had happened, as he explained that other members of the board were on the program and would go farther into detail with the happenings of the last quarter.

W. W. Bullard, a director from Andover, gave a thorough explanation of the addition of the equalization plan to our selling program.

"We were forced to adopt this new plan because the summer surplus was placing our markets in jeopardy and as you know was making our organization easy prey for nearly all kinds of independent buyers of milk."

"First I want to clarify this. It has been stated that this plan was foisted on our members without warning and was the brain child of the board of directors. You members of the Advisory Council heard such plans discussed here several times during the past year and a half and it was upon your authorization that the directors worked out such a plan. The Price Reporter carried intimations that such a plan would need to be adopted to equalize production for the past year or more and if the members did not know about it before it was put into effect, you delegates must assume your share of the blame for not informing them."

"The most complaints we are getting are from the independents who have been paying their shippers a premium over the organization price and this new plan."

"Authorities on milk marketing plans, the country over, who have studied our system claim our plan to be sound."

How It Works

"Here's just what we have done. We took an average of the three lowest consecutive months in production, in 1927, which happened to be October, November and December, and then we took the month of lowest fluid sales on the Pittsburgh market. After averaging the production of the three lowest months we found that 70 per cent of that amount equalled the lowest month of fluid or Class I sales."

"That meant that we could pay our farmers Class I or fluid milk price for 70 per cent of their production during October, November and December of this year and that for 1929 we would take the production of October, November and December of 1928, this year, and take 70 per cent of that average which would be the amount of milk each producer would be paid for at basic or Class I price."

"Our job is to sell the milk of our members and we hope to continue doing so in the best manner we can."

With that the meeting adjourned.

American Dairy Federation

A. A. BORLAND

THE American Dairy Federation, comprising seventeen national dairy organizations, held its annual meeting at the Palmer House, Chicago, on December 5th. E. M. Bailey of Pittsburgh, Pa., president of the Federation, spoke of the accomplishments of the organization the past year. The Federation's committee including one representative from each of the member organizations to study the Parker Bill, the Uniform Milk Ordinance and the proposed Standard Milk Code had met in Washington, January 30th, 1928, and had given thorough consideration to the proposed measures. The Parker Bill proposed certain administrative changes in the Public Health Service which were objectionable to the members of the committee. A new draft of the bill eliminating the objectionable features was given careful study and nothing inimical to the dairy industry found in it.

The committee was of the opinion that the Uniform Standard Milk Ordinance as proposed by the Public Health Service is too complicated, is not practical, and that its attempted enforcement will result injuriously to the milk industry and will not prove a benefit to consumers. On the other hand it is believed that a uniform law could be drafted in skeleton which would cover all important factors and be capable of modification to suit varying conditions.

The Federation arranged a dairy pilgrimage to Washington last May, so that the dairy industry might become better acquainted with work of the Dairy Bureau and that of the Bureau of Agricultural Economics as it relates to dairying. A large number were in attendance and the

welfare of the dairy industry was ably demonstrated.

Through the influence of the Federation provision was made by Congress for sending thirty delegates to the Eighth International Dairy Congress held at London and Reading in England and at Edinburgh and Glasgow in Scotland. The Congress was attended by delegates from 47 countries. Over 100 papers were presented on different phases of the dairy industry, giving the latest information concerning the production, handling, manufacturing and marketing of milk and milk products as well as their relation to human health.

The Federation had supported the request of the U. S. Dairy Bureau for additional funds for research work in dairying, and that of the Bureau of Animal Industry for \$125,000 for work looking to the control of contagious abortion.

O. E. Reed, the new chief of the U. S. Dairy Bureau, spoke briefly, outlining the important problems confronting the dairy industry. He stressed efficiency in production through better breeding, feeding and culling; improvement in quality of milk and milk products; and increased consumption of dairy products through new and better products as worthy goals.

A. M. Loomis, Washington, D. C., secretary of the Federation, gave an excellent report of the work conducted by the secretary's office the past year, the importance of the dairy industry, and the problems that should have attention the coming year. The treasurer's report showed that the Federation was in sound financial condition.

H. E. Van Norman, Chicago, Ill., gave

Keep your COWS FIT!



DAIRY authorities, as well as successful dairymen, agree that the profit on the yearly work of a cow depends upon the condition she is in when she freshens. If she has been made to give all the milk possible before she calves, she will not "bag up" and, in consequence, will not freshen with a big milk flow. Or, if the cow has been dried off but not fed so that she can build up a reserve in the form of extra weight, she will not be in condition to bag up nicely before calving and be ready to fill the pail to the brim for a long time after freshening.

UNION GRAINS is an outstanding feed, not only for producing a heavy milk flow, but also for feeding valuable dairy cows during the critical time between drying off and freshening. UNION GRAINS with any suitable roughage makes an ideal ration for feeding during this resting period.

There are five types of UNION GRAINS—differing in their percentage of protein. They are all a mixture of many kinds of sound wholesome

grains, by-products and other valuable ingredients. For this reason they are complete in their protein. That is why they are adapted for supplementing home-grown corn and oats, as well as all the different kinds of farm-raised roughage.

Whatever you raise for roughage, whatever you raise for home-grown grains, there is a type of UNION GRAINS that will balance them and make a perfect ration—one that will keep the cows in the finest health and increase the milk yield.

Write for UNION GRAINS Booklet

We have prepared a new booklet describing the five types of UNION GRAINS, as well as other UBIKO World Record Feeds. You may have a copy on request—postpaid. Address

THE UBIKO MILLING CO., Dept. E-24, Cincinnati, Ohio



Makers of UBIKO World Record Feeds

UBIKO All-Mash System
Starting and Growing Ration
Complete Laying Ration
UBIKO World Record Egg Mash
UBIKO Fattening Mash
UBIKO Scratch Feed
UBIKO Pig and Hog Ration
UBIKO Horse Feeds
Union Grains Dairy Rations
And other UBIKO World Record Feeds

UNION GRAINS

THE FIRST DAIRY FEED MADE

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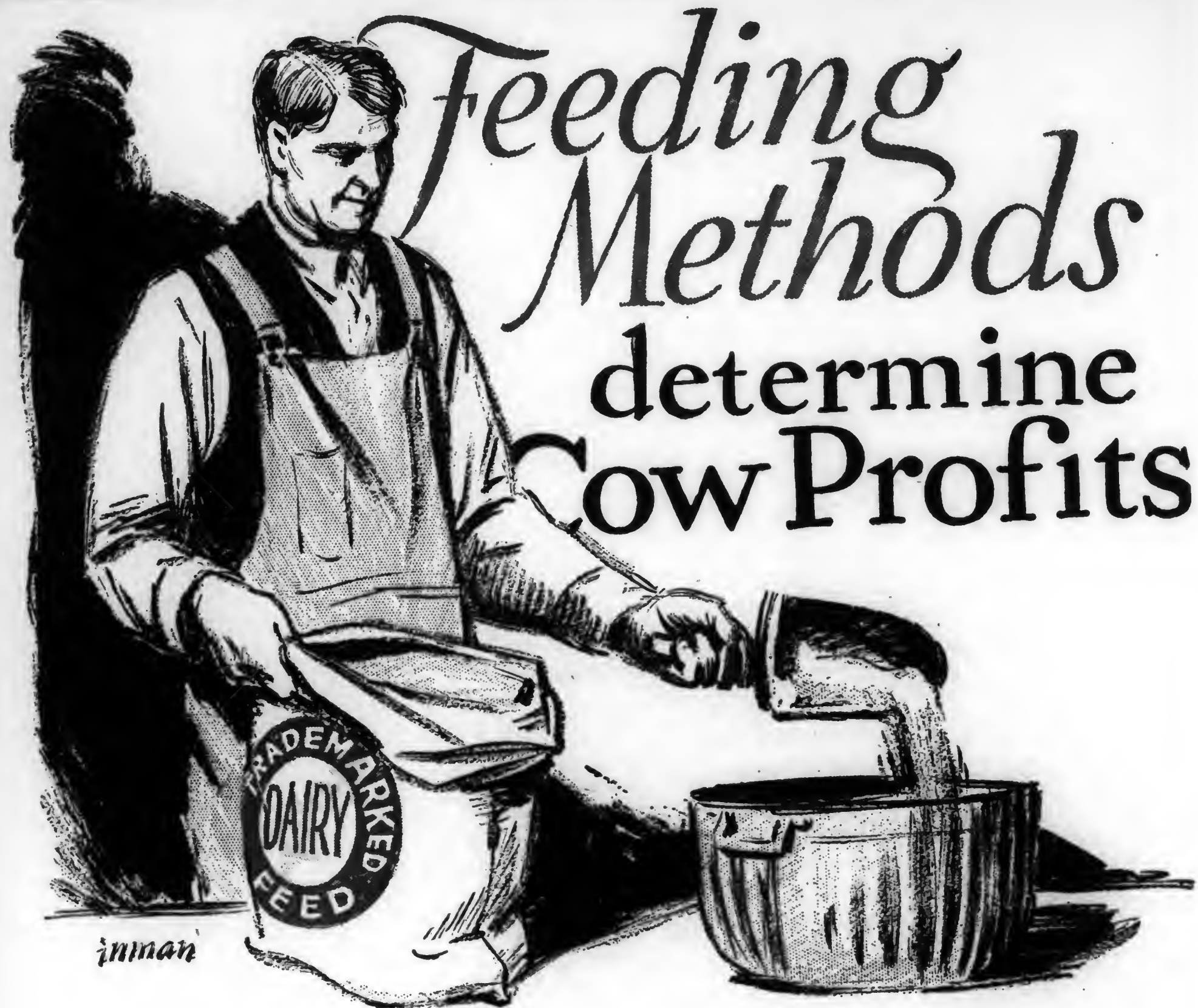
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ists, inspectors, laboratories, and the keeping of great volumes of records.

Finally, the compounding of rations suitable for various conditions, that will blend with your home-grown feeds in the most profitable way, needs the best skill and experience in the whole field of agricultural training.

You have your choice of two methods, in buying your dairy feeds. You can undertake to assemble these ingredients yourself, or you can buy them from one of the great feed companies which has made this work its specialty.

The argument is all in favor of buying from the feed company. They have the organization of skilled buyers who get the lowest price and are able to sell to you at the lowest price. Their chemists rigidly examine every carload and accept only the best. Their machinery grinds and mixes at so low a cost that your scoop-shovel becomes a luxury, and their technical men, studying the conditions of the industry every day, are the best posted men in the country to advise you.

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Buy Trade-Marked Feeds Advertised in Pennsylvania Farmer

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December 29, 1928

Established 1877



Two Guns White Calf, Blackfoot Indian Whose Picture Appears on the Nickel

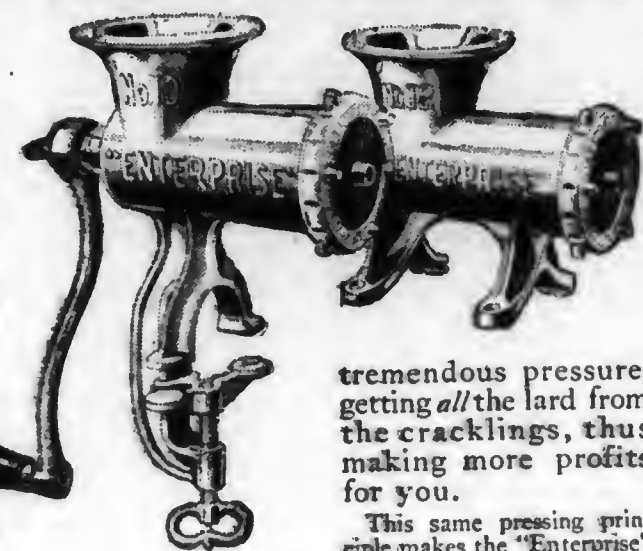
GET MORE FROM YOUR HOGS

WHEN you butcher hogs at home, you get better food at lower cost — delicious sausage, pure lard, fine hams and bacon. The improved "Enterprise" Meat-and-Food Choppers and Combination Presses thus save and make money for you.

"Enterprise" Meat Choppers (shown above) are so greatly improved now that it will pay to buy the new one even though you may now have an old model.

The new pattern knife revolves against the perforated steel plate and gives a perfect cut—no waste of rich juices, no tearing or grinding.

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You should also have an "Enterprise" Sausage Stuffer, Lard and Fruit Press (shown at right) which fills three needs perfectly.

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tremendous pressure, getting all the lard from the cracklings, thus making more profits for you.

This same pressing principle makes the "Enterprise" the most efficient fruit press.

All metal, always sanitary. Prices, \$11.50 to \$12.75, according to size.

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Farm Facts and Fancies

By ALVA AGEE

WE are told that the per-capita consumption of potatoes has fallen off. I do not have the figures, but it could not well be otherwise. It is due partly to a matter of styles in human forms, and partly to the persistent campaign against starchy foods that several groups are carrying on.

The writers on health are given a lot of space in the papers and magazines, and they are very pessimistic about the ability of the liver to do the work for which it was created. They ring the changes on the inherent evil in starch, and then they turn and lambast meat, forgetting that it was meat and potatoes that made America grow. Another group, engaged in nation-wide advertising of various fruits, influences public thinking.

The greatest bar to normal consumption of potatoes is the belief that they are fattening. A high percentage of half our population want to be slim. They are not eating potatoes as their mothers did—far from it. Advertising campaigns, recommended by some, might do a little good, but I do not believe it.

High-Quality Potatoes

There is only one sure way of getting the public to eat more potatoes, and that is to supply it with palatable stock. When I was a boy we grew the Early Ohio for home use and sent the Peerless to market. Its virtue lay in its productiveness, and it had no other virtue at all.

I venture to say that more than half of the varieties popular with growers are poor in flavor. People pay a long price for Idaho Russets. The East has several varieties that are high in quality, but consumers get so many potatoes of low quality that they drop their purchase and substitute other vegetables and fruit. Consumption would increase if the public could be sure that it would get the quality wanted.

The saying of these things is not pleasant, but they are true, and the way out is to discard watery and strong varieties, and to quit growing potatoes in soils that cannot produce high table quality no matter what variety is planted. The first suggestion is practical: the second probably is worthless because the potato will continue to be grown wherever production promises profit.

More Farming Land

The national government has been using public money right along to increase the farming area through irrigation projects. There has been criticism, but the old policy has not been abandoned. Sentiment against it grows stronger, and that is encouraging, but the government does not seem to understand that the farmers will not put up with effort to put more people into competition with them. It was time to quit that sort of thing many years ago.

There are far more farms in the eastern states than there are people wanting to farm them. Any one wanting to farm has plenty of opportunity. Anyway, we have too much production. Our farm organizations are strong enough to block all new projects for government financing of land development, and if our leaders get sufficiently in earnest we may hope to see them blocked. It is time to change the national policy abruptly and definitely.

A Simple Formula

Mr. Zinn packed a list of truth into half a column when he told us of the chief need of a great total area of land that is being farmed in an effort to make a living from it. Soil science needs libraries of books to contain what has been learned about soils and their needs, and much is yet to be learned, but nine times out of ten the

and lime and phosphorus are needed to put it into condition for profitable farming.

The problem of the owner is not to determine what it needs, but to make sure that the land is worth the expense of being put into condition. I know land that should be abandoned for farming purposes; it simply is a liability to the owner. Usually a wet, sour farm can be given value if only a relatively few acres can be drained and limed and fertilized. The remainder of the farm will furnish some grazing and some hay. These few good acres make the beginning of better days. The draining can be done by the owner, but the tile and lime and phosphorus cost money, and that is why many have started their program of improvement on a small scale.

When one starts, and sees the results, he keeps going. The scheme is practicable, it works. The risks are small if one is content to begin on a small scale, and the returns are as sure as anything in farming can be. Drainage, lime, phosphorus—these three things and a few acres needing them can pull one up out of a feeling of hopeless helplessness.

Canadian Wheat

The mounting figures of production of wheat, as they appear in Canada's official reports, do not come home to one fully, but some graphic articles in the Regina, Saskatchewan, Leader, describing the handling of the crop, bring its magnitude before one. The rush to get a considerable part of it to lake shipping points and through the lakes before ice locks up traffic is terrific. However, it is the future development of this crop that concerns me in view of our continuing need of a foreign market for surplus wheat.

My neighbor is part owner of two thousand acres of land in western Canada that is devoted to this crop, and he has made some study of the increase in acreage that must come as Canada develops. That region is dependent on wheat and other small grain as its chief crops, and our competition with it on a profitable basis seems to me out of the question. That is to say, world markets are to be supplied with wheat at a price level that will keep competitors poor because necessity drives to that line of production on most of this new land. If this is so our own production must come within the home demand as the acreage north of us increases.

Nothing to be done about it now? No, wheat cannot be cut out of the regular crop rotation in our winter wheat belt, as matters now stand, but one likes to try to look ahead, and within a few years there will not be any room in the world's market for any surplus wheat grown in this country. This is a consideration in the working-out of any marketing scheme.

Fertilizer for Potatoes

I HAVE been using a 2-8-5 fertilizer for potatoes for the past two or three years. This seemed to give good results, but we find a better way only by experimenting, so last year I bought a few bags of a 3-10-6 fertilizer and used it on the potatoes. First I used the 2-8-5 fertilizer for a part of the potatoes and used the 3-10-6 on the balance.

While the potatoes were growing I could tell a marked difference in favor of the higher grade of fertilizer. The leaves were greener and they seemed to be growing faster. When the potatoes were dug I could notice a difference in favor of the higher grade.

The same amount of fertilizer per acre of each was applied. I feel sure that the results obtained would justify buying the higher grade of fertilizer even though it did cost more.

Soil Improvement

By W. D. ZINN

Take an Inventory

THE good business man some time during the year stops long enough to take an inventory of his business to ascertain what he has been doing during the past year. A hardware man told me recently that he knew to a certainty only once a year whether he was making or losing money and that was when he had finished taking his inventory. He said that during his business career of 25 years he had not failed to get this information at least once a year. If it is necessary for the merchant to know what he is doing at least once a year it is equally important for the farmer to know it, especially the farmer who is in debt.

I am convinced after putting the question to thousands of farmers that not 50 per cent of the farmers of our country take an inventory. If it were a difficult matter to take this inventory the farmer would be excusable, perhaps, for not doing it, but it is a simple task. All one needs to do is to put down on one side of the ledger all his assets, consisting of all livestock, machinery, grains, accounts due and bills receivable, etc.

On the other page should be listed all his liabilities, consisting of the open accounts he owes, the notes he owes and any other evidences of debt. The striking of the balance will disclose just how he stands.

We always invoice our livestock and other holdings at what we think they would bring if sold at a forced sale. Suppose the excess of our assets over our liabilities on the first day of January, 1927, was \$2,000 and on the first day of January, 1928, it was \$4,000, then we know we have cleared \$2,000 during the year 1927.

It is a very simple matter and any one who will practice it for a few years will be paid in satisfaction a hundred fold for his labor.

Sweet Clover as a Weed

WE have a field of second year sweet clover that we would like to plow for corn. People tell me that the clover will come up like everything in the corn. When would the clover come up the least in the corn, with fall plowing, or early or late spring plowing? We had intended to use the sweet clover in some way but on account of so much wet weather the clover stood unharvested.

E. Benton Hankey.

FARMERS tell me that if sweet clover is turned down during the winter or early in the spring it will sprout from the roots and give a good deal of trouble in cultivation of the crops. I cannot speak from experience, for I have never turned it down at those times, but I have turned it down after the middle of May and have never had any trouble in that way.

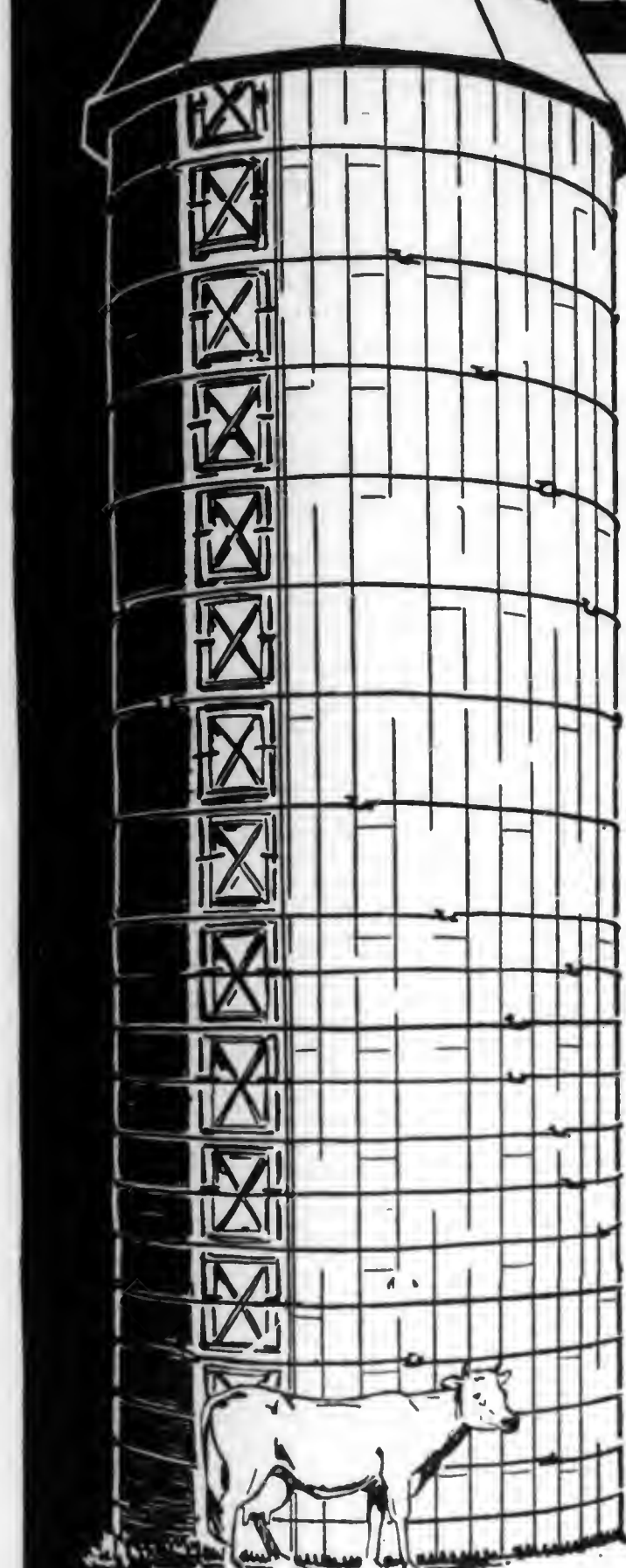
It is a great benefit to the soil when it is allowed to grow knee high or more and then turned down. It is best to run a disk harrow over the ground, turning the same way the ground is to be plowed before the plowing is done.

Mixing Lime and Manure

I expect to disk manure into the corn ground next spring, and also to mix an application of ground limestone at the same time. I should like to know if it is advisable to mix the lime with the manure in the stables during the winter. W. W. Backus.

GROUND limestone is not supposed to set free much ammonia in the manure, but I would just a little rather not mix them together in the barn. But little loss will be sustained if

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Send for this valuable book at once. It tells you how to defeat the corn borer. It shows you how a Marietta Silo will pay for itself while adding to the profits from your farm. It takes good management to make money on a farm these days, and this book gives you a lot of good management points. Also it illustrates and describes Marietta Silos, Brooder Houses, Farrowing Houses and low-cost Marietta Concrete Tile for farm buildings. With it we will send you full details of this unusual offer—to put up your silo now—allow you to pay for it in the Fall of 1929. You can't afford to be without this book. Clip the coupon and send it—right now while you're thinking about it.

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SOLE AGENTS
 OF AMERICA
 HORACE LELAND WIGGINS

No. 15

The first phase of the romantic is the ideal. It is the open fire, the tall windows, the tall chimney, the bright glass, the wine served in the golden plate, the Dutch oven of cooking, the mother's hair in the dress, the stage, the quilling lace, the corn husks, the stage, the nature of other days.

But we forget that these are phases of romantic sentiment. These are pictured by poets and described by poets. But the darker phases are kept in the background. We remember Maud Muller, the rustic beauty. We forget her tired, poverty-

THE above is a picture of Mr. Arthur W. Sheets of Harrison county, W. Va., holding the sweepstakes cup and sweepstakes ten ears of corn, won at the State Corn and Grain

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Volume 69, Issue No. 15
Established 1877

NOT HOME GROWN

A BIG retail store in Pittsburgh recently bought 40 carloads of potatoes in Maine. At the same time there is a surplus of desirable potatoes in Pennsylvania, with a much shorter haul to the store and less risk in transit. From all of which it appears that there is still some work that an organization of Pennsylvania potato growers might do.

OVER TWO CENTURIES

A CORRESPONDENT of the London Field reports that the original Ribston Pippin apple tree, standing since 1709, was recently blown down and destroyed by a gale. Ribston was first mentioned in this country 125 years ago. Probably most pomologists did not know that the original tree was living until recently in Yorkshire, England. What is an apple tree's possible age? Where is the oldest one in this country?

A CALL FOR HELP?

SENATOR THOMAS of Oklahoma has introduced in Congress a resolution inviting the farm organizations of the country to appoint a commission of ten men to represent agriculture in the consideration of legislation for farm relief. Is this a result of a study revealing the difficulty of such legislation? Does it indicate that Congress, after all the hearings and discussions of the past seven years, finds that it wants to legislate but doesn't know how?

DANGEROUS HOGS

IN COMMENTING on our campaign for safe bulls several readers have suggested a warning against dangerous hogs. A few cases of injury or worse by hogs have been reported and here is another: December 16 John T. Potts, a farmer near Nashville, Tenn., was crossing a pasture when he was attacked by his bear. The animal's tusks cut an artery in Mr. Pott's thigh and he bled to death in a few minutes. Safety all the time is a good rule in handling farm animals.

NEGLECT OF BLOOD

OF THE West Virginia stockmen who registered on the recent Baltimore and Ohio ram special train 503 use pure-bred rams and 430 do not. Of the latter number 237 declared that sheep are their chief source of income. What shall we say about men who depend on any kind of livestock for a living and neglect blood, that fundamental essential of quality in their product? These men were interested in improvement by blood

bought every pure-bred ram it carried. But the number reporting neglect of a vital factor in their chief source of income indicates that the problems of production are not all solved—not by a long shot.

OUR WASTE PRODUCTS

A BILL to stimulate the manufacture of various useful articles from waste farm products has been introduced in Congress by Senator Schall of Minnesota. It provides \$6,550,000 for use by the Bureau of Standards in establishing eight demonstration plants to convince manufacturers that paper, pulp, strawboard, etc., can be made profitably from straw and corn stalks, alcohol from potatoes and xylos from peanut shells. Turning waste products into valuable commodities is an economy to be encouraged, but with the common knowledge that such transformation is possible and with manufacturers on the lookout for ways to make money it seems unnecessary for the government to set up plants to prove that it can be done. There is also the question of how "worthless" these so-called waste products really are. If everything the soil produces is sold and nothing returned in its place we know the results. Farmers will do well to consider this angle when bargaining with those who want to relieve them of alleged waste products at a low figure.

PROGRESS

TWO hundred and fifty homes in ten counties were enrolled in home beautification work in West Virginia during the past year. This compares with 96 homes in seven counties in 1927 and is a healthy growth when we consider that this activity has been in progress only five years. The fact that these projects are spreading and are approved where tried shows that they hold something of value to farm folks. Pride in one's holdings inspires confidence and creates a state of mind which overcomes obstacles. The impossibility of measuring the worth of a person's state of mind should not make us forget that it is one of his best assets or worst liabilities. But home beautification in West Virginia is more than a state of mind; it is an indication of the progress which agriculture in general is making, strides which in the next few years will surprise outsiders who do not know the soil and the people of the Mountain State.

JUST AHEAD

COMING events in which our readers have a special interest include: New Jersey's Agricultural week at Trenton, with fifteen organizations in cooperation and in session, January 15-18 inclusive. The great Farm Products Show at Harrisburg, with annual or special meetings of all state organizations, sales of live-stock, assembly of club and vocational school contestants, etc., January 22-25 inclusive. West Virginia's Farmers' Week at Morgantown, February 4-9, with its exhibits, demonstrations and meetings; and this time an attraction missed in recent years—W. D. Zinn.

UNCONSCIOUS

A SPEAKER at a recent banquet of hog-raisers amused his discriminating auditors with a bit of unconscious humor. He announced, at the beginning of his speech, that he would discuss reduced and controlled pork production, adding that he would try to make a few practical suggestions also! Controlled pork production is productive of a lot of talk, but the above speaker classified it properly even if he was not conscious of doing so. The trouble with controlled production is the same as with the weather—no body can do anything about it.

ADVERTISED FRUITS

THE principal problem of Hawaii's pineapple industry, according to a Department of Commerce report, is to secure more lands to enable producing companies to satisfy the demand. The principal problem of our fruit industry is to locate a demand which will take care of the land now in production. While the systematic and extensive advertising semi-tropical fruits have enjoyed is expensive we cannot deny that it has given these fruits the jump on the apple and its neighbors. And if the apple and other fruits of this region are to get the attention they deserve from the consumer we must give more study to the methods of selling which have put the pineapple and its kin on our tables.

ARBITRARY AND UNREASONABLE

THE supreme court of Colorado has recently decided a case that would have been more interesting a few years ago than it is now. A beet grower who was under contract to allow a cooperative association to sell his crop found that the organization and the sugar company could not agree and his product was in consequence without a market. He asked to be released from his contract and the association refused to release him. He then enjoined the association from enforcing the contract. The court ruled that the association's refusal either to sell the crop or to release the grower was "arbitrary and unreasonable"—which is in line with common sense. An organization which fails to keep its part of a contract has no right to expect the member to keep his part of it. Fortunately the list of such cases is getting shorter as the obligations of both parties are becoming better understood.

NEEDS THE JOB

A CORRESPONDENT tells us that a cooperative organization in his community has employed as manager a man who has been a conspicuous failure in his own business. He wants to know whether farmers can reasonably expect their organization to succeed under his direction. Our friend asks "Why hire a failure?" We can't answer all these questions, but sometimes the reason such a man is employed is that he needs the job. The management of a cooperative business is difficult and should never be entrusted to any but competent men.

OUT OR IN?

A LARGE number of prominent business men are at work on a project not heretofore successful in any country. They are trying to take the tariff out of politics. We wish them success, but there are a few things which lead to some doubt of it. All issues in a democracy must be determined by vote some time. So whenever the tariff again becomes an issue it is bound to get into politics. For it is never possible to keep real issues out of politics no matter how desirable that may appear to be.

A FATAL WELL

LETHAL gases may appear in a well or a cistern just as they sometimes occur in a partly filled silo. A few weeks ago a boy who went down into a well was overcome by noxious gas and died. Now suit for damages has been brought by his parents against those who employed him. It is easy to test the air in a well or a cistern by lowering some small animal and it should always be done before anybody is allowed to go down.



FOLKS planning to attend the Farm Products Show at Harrisburg in January need not worry about lodging for the night. The secretary of the Harrisburg Chamber of Commerce informs us that several thousand rooms have already been engaged for this occasion and that everybody desiring to make arrangements ahead of time can do so by writing to the Housing Bureau of the Harrisburg Chamber of Commerce, Harrisburg, Pa. Those not making arrangements previous to the Show can find the headquarters of the Emerson-Brantingham Building where such reservations can be made. In writing for reservations it is well to state what price you desire to pay and how many will be in your party.

THE question is asked by a reader: "Can I trap on my own farm without a license?" According to the Pennsylvania game laws, he can. This man also asks whether his married daughter living with him on the farm can trap without a license. The laws also give her permission to do so without a license.

THE Indiana County Horse Association is sponsoring a movement to bring about legislation during the coming sessions lowering the registration fees of stallions from \$10 to \$1, a movement which we endorse wholeheartedly. These fees go directly into the State Treasury and accordingly become a direct tax. The Stallion Law of Pennsylvania provides that no stallion which is not a pure-bred horse shall stand for service. So why should the owner of a horse be taxed when the horse is a real asset in the community in which he is used? Instead of taxing the owners of good stallions it would be more in line actually to give them a bonus for the ownership of such stallions to encourage the production of better horses in this state at a time when the need for them is being felt very keenly.

THE certified seed potato industry has never reached large proportions in Pennsylvania. No doubt a reason for this is the fact that those sections adapted to the production of disease-free seed have also good local markets for table stock. The difference in price obtained for seed and for table stock is not sufficient to encourage any but the most careful growers to enter this specialized phase of the potato industry. Still the records show that 60,490 bushels of certified seed were produced in the state this year. Potter county leads with a wide margin in the amount of seed stock grown.

A BREEDER in Bradford county discovered from his cow-testing association records that daughters from his herd sire were producing 15 per cent less milk and 14 per cent less butterfat than their dams. Needless to say he disposed of the bull as soon as he gained this information. However, had it not been for the accurate information he got from systematic keeping of records of all of his cows, he doubtless would have continued the use of this bull for a year or so longer and his herd would have continued to decrease in value. This valuable phase of cow-testing association activity is too frequently overlooked.

THE finding of corn borers in four townships of Northampton county brings the infection of this pest into the so-called corn belt of southeastern Pennsylvania. The borer within a very few years will spread over this entire section, unless something unforeseen should happen to check it. Corn growers need not become seriously alarmed about this. But they will be obliged to change some of their present methods of handling the crop when the borer arrives. The high cost of labor has brought into common practice the husking of corn from the standing stalk, and then disking the ground for wheat or oats or plowing it for a second crop of corn. Much of the heavy fodder remains on the surface. To control the borer, all of this fodder must be turned under. The most economical method of doing this in an area where corn is heavy is still to be determined.

THE Bradford County Cooperative Holstein Association held its annual meeting last week. A total business of \$20,050 was transacted by this Association during the past year, according to the report of the sales manager. This sales manager is

Eastern Farm Comments

By MILES HORST

prospective buyer in locating and inspecting cattle and assists in the shipping of purchases. The membership of the Association has decreased considerably within the last two years due to the fact that the membership fee has been raised from \$1 to \$15 and the annual dues to \$5 a year. However, these higher initial fees and annual dues result in a smaller but more active group of men. The surplus of cash in the treasury of this Association at the time of its annual meeting was \$775. Looking forward to the coming year, one of the projects discussed was the desirability of the Association buying several high quality Holstein sires and placing them at advantageous points in the county for the use of the members in their herds, as well as other breeders who cannot afford to purchase outstanding sires.

field to be planted is in a heavy clover sod. I will apply 1,000 pounds of a good commercial fertilizer per acre and will cultivate and spray the field as thoroughly as our conditions will permit.

Again I am asked the question, have you made any money on your potatoes this year? No, I have not. I sold three carloads immediately after digging which netted me 49 cents a bushel at the barn; another carload which netted me 42 cents at the barn and I still have two carloads left. But then this isn't sufficient reason for my making any change in potato growing.

Five years ago I netted 71 cents a bushel on my crop; four years ago, \$1.88 per bushel; three years ago, \$1.22 per bushel; last year 97 cents per bushel and this year no doubt less than 50 cents a bushel. Over a five-year period I have had a reasonable profit in growing potatoes. I have faith that over the next five-year period I will have the same. I am confident that I can produce potatoes cheaper per bushel during the next five-year period than I have during the past five-year period, largely because of higher yields. So if the average net returns per bushel during the next few years may be slightly less I will still be safe.

New Jersey Notes

By G. W. HARRIS

EDWARD A. MECHLING of Moorestown will succeed John H. Hankinson of Pennington as president of the New Jersey State Horticultural Society during the coming year. Robert F. Hulsart of Manasquan was elected vice-president and Professor A. J. Farley of New Brunswick was re-elected secretary and treasurer at the annual conference at Atlantic City on December 5th.

Members of the executive committee include Charles F. Repp, Blairstown; Henry F. Hall, Moorestown; Charles E. Barton, Marlton; Henry H. Albertson, Burlington; L. G. Schermerhorn, New Brunswick; Clement B. Lewis, Riverton; Byron T. Roberts, Marlton; Roscoe W. DeBaun, Pine Brook; Jack Thornbrow, Vineland, and John H. Hankinson.

Paul H. Burke, Bridgeton, was chosen as a delegate of the Society to the State Board of Agriculture and Wade Heritage, Richwood, was elected a delegate to fill the unexpired term of the late John Barkley of Cranbury.

LOCUST GROVE FARMS, owned by Henry W. Leeds, captured the sweepstakes prize at Atlantic City for the best exhibit of 25 apples of any one of the varieties grown in New Jersey, had the best commercial decorative display and the best tub bushel of apples grown in the state. Emmor Roberts, Moorestown, displayed the best tub bushel of apples in the county list and won the largest number of points at the Horticultural Society Show.

FOLLOWING the gift of \$1,250 to Rutgers University by Dr. J. G. Lipman, director of the New Jersey Agricultural Experiment Station is the announcement of a Cook-Vorhees Soil Science Fund in the College. Dr. Lipman's contribution is the \$1,250 Chilean Nitrate of Soda Award for nitrogen investigations that was granted to him on November 22 when the American Society of Agronomy met in Washington. The Cook-Vorhees Fund has been so named in recognition of the services of Dr. George H. Cook and F. B. Vorhees, first and second directors respectively of the Experiment Station.

The three other scientists who share in the Nitrate of Soda Award are Dr. T. L. Lyon of Cornell University and Dr. Frank T. Fred, Dominion chemist of Canada.

STERN BROS., Vineland, and Hoch Bros., Sicklerville, were the leading winners in utility birds shown at the Seventh Annual Vineland Poultry Show held at Vineland, N. J., on December 12-15. Of the 330 exhibits over 100 of the entries were bantams. The exhibition birds were judged by John C. Kriner and Newton Cosh and the production birds placed by Prof. Jas. E. Rice, Prof. W. C. Thompson, Leslie M. Black and Prof. C. E. Lee. Harry C. Schabell, Trenton, N. J., showed first prize Barred Rock cockerel, and C. B. Waite, Vineland, showed first prize Black Game hen.



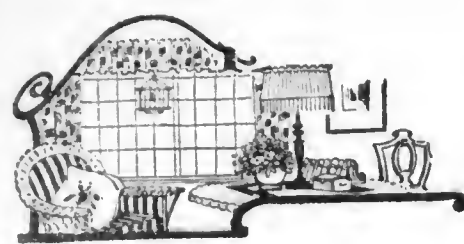
A Flying Farmer

WHEN Leonard H. Norcross, a poultryman living near Hightstown, New Jersey, left home at 9:30 on the morning of December 4th to attend the New Jersey State Grange meeting at Atlantic City, and arrived there 45 minutes later, he set a traveling record for the delegates to the annual meeting. This "flying farmer", who is Assistant Steward of the State Grange, is one of the first, if not the first, farmers in the East to pilot his own plane. Not wishing to take the usual two-hour auto trip from Hightstown to Atlantic City, Mr. Norcross flew directly across the "Jersey pines", an area as void of emergency landing fields as our most mountainous regions.

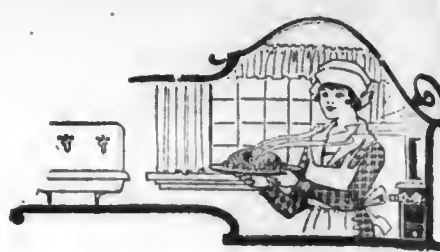
In speaking of his trip he said, "I first flew directly over the Atlantic City airport, missing it entirely because of the poor visibility. Visibility was the worst of any time I have flown, but the air was smooth."

THE stability of the potato industry in Schuylkill county, Pa., was well indicated at the annual meeting of the growers of that county held at Pottsville, December 15th. The attendance was one of the largest seen on this occasion in several years and certainly the interest in production and marketing discussions showed no lagging. This group of growers buy most of their fertilizer and spray materials cooperatively. Their total amount of business last year was \$47,632.18. They are fortunate in having a very active and able secretary in H. O. Hartman of New Ringgold. His report showed that the overhead in handling the business of last year was less than two per cent of the gross account handled by the association. At noon the business men of Pottsville entertained the growers at a banquet held in the Necho-Allen Hotel. Charles Johnson of Kist-Lyn was the principal speaker.

FREQUENTLY as I go about the state and mingle with potato growers, I am asked the question, what are you going to do with potatoes next year? To which question my answer is, I will do with potatoes next year exactly as I have done each year during the past five years. I will again



The Farm Home



To Wish All A Happy New Year

By HEPSY NEFF

"American for Me"

"Tis fine to see the Old World and travel up and down
Among the famous palaces and cities of renown;
To admire the crumbling castles and the statues of the kings,
But now I think I've had enough of antiquated things.

"Oh, London is a man's town, there's power in the air;
And Paris is a woman's town, with flowers in her hair;
And it's sweet to dream in Venice and its great to study Rome;
But when it comes to living there is no place like home.

"I like the German fir-woods, in green battalions drilled;
I like the gardens of Versailles with fountains filled;
But why to take your hand, dear, and tangle for a day
In the friendly western woodlands where Nature has her way!

"I know that Europe's wonderful, yet something seems to lack;
The past is too much with her and the people still look back.
But the glory of the Present is to make the Future free—
We love our land for what she is and what she is to be.

"Oh, it's home again, and home again, America for me!
I want a ship that's westward bound to plough the rolling sea,
To the blessed Land of Room Enough beyond the ocean bars,
Where the air is full of sunlight and the flag is full of stars."

From the poems of Henry Van Dyke.

TODAY the peoples of the world welcome the New Year with a unity of word and thought never before known. This is a material age, we say; a machine age. American-made locomotives run over American-made steel rails in China and Siberia. An American-made farm machinery is used in Russia and Manchuria. American petroleum provides lamps in Patagonia and Greenland.

That the material should go before the spiritual is not reversing the order of nature but in harmony with it. The Master of men in making plain the "New Year's Kingdom on earth" said, "The blade, then the ear, then the corn in the ear." No sign or sound of kind or quality of fruit in the winter days small brown shells of seed and looking roots lie hidden. If it does not hinder, the bare hills compel us to renew their gifts to next man's year, wherever the clouds carry moisture.

To Do Our Part

We ever learn to cooperate with nature. To do our part in a Divine plan which includes not only the beauty of the scene and the substance that it gives, but the wisdom and the gain of the world. The sympathetic understanding, the good will and the cooperation by which we may progress is possible. It is a part of our handiwork to open the seed and find the precious life germ waiting nature's call. Ours only to protect the seed and plant. Ours only to provide the young human life with the sun-shine of love and a safe atmosphere in which it may live and grow.

Perhaps this prosperity of ours may

seem to be reaching what the factories call "the saturation point." Again we must go back to the Great Teacher and the eager young man who "came running" and dropped on his knees while he poured out his story of the perfection of his life, finishing with the question, "What lack I yet?" And the Great Teacher, looking into the inmost soul of the young man, loved him with a love that could not hide the truth.

"Go sell what thou hast and then come," was the pitying answer. And the young man went away sorrowful for he had great possessions. Could

the Master have told him his lack when money had brought him all he knew of life's values?

The Lesser and the Greater Good

Forever life offers the things of the body and the things of the spirit; the larger and the lesser good. Following the example of the Master our best teachers are saying, "Never tell a child anything which he can be helped to find for himself." The three great questions for us are What, How and Why. These words should challenge every demand on our time and resources. To learn for ourselves; to accept our mistakes and correct them; to see and choose the larger good; to test and learn what helps and what hinders. This is the challenge of the New Year. May we meet it bravely, patiently, wisely, each for himself and herself, fearlessly, whatever the crowd is doing. This is our best wish for every reader of this page during 1929.



A Farm Woman Busy with a Hooked Rug

(Courtesy U. S. D. A.)

The Artistic Hooked Rug

By GERTRUDE S. STEWART

THE hooked rug is the most distinctly American of all handicrafts. There is no borrowed idea in it, being wholly colonial in inspiration and character. No doubt that is the reason why hooked rugs are constantly growing in popularity.

The making of beautiful rugs among farm women has been of wide-spread interest the past few years. In home demonstration work, rural extension workers have had many classes in braiding, weaving and hooking rugs.

County and state fairs, church, school and community bazars like to feature home-made rugs, and this provides a new source of income for farm women. In addition to these rugs helping the ambitious woman to beautify her home, you see, she has another means of earning money to help provide improvements and furnishings.

Several states have county weavers' associations where farm women standardize their designs and market their products. This cooperative idea has been a great success. In one single county thousands of dollars have been cleared annually by groups of rural women working together.

You Can Duplicate Rare Designs

Hooked rugs are made by pulling loops of carefully cut woolen strips through the mesh of hurlap or other

rug which I will lend to any reader who sends an addressed envelope.

Modern equipment helps the woman of today to make a lovely hooked rug in a very short time. You can secure needles now with which to do the looping. And instead of cutting strips, worsted yarns of heavy quality are made for that purpose. All other necessary equipment can be purchased, too. If you do not care to plan your own design, stamped burlap is available.

Hooked rugs are things of beauty and joys forever. They have so many good qualities. Usually they are so gay, and lend that charm of color so desirable in today's home decoration. They are very durable and, if made of interesting design, carry a sentimental appeal that has no equal in home handicraft. If I have any dull moments this winter, there will be a fine new hooked rug at the foot of my bed.

Safety Measures

MARK goloshes, rubbers, gloves, umbrellas and underclothing, etc., so that they can be readily identified. For a small outlay name tapes will be prepared by a firm specializing in this kind of work. The name tape is narrow and firmly woven with a heavy, corded edge. Initials, or full names if one wishes, are woven or printed in indelible ink. Some articles can be marked with adhesive tape, the initials being printed in ink.

If everything is marked it is much easier to sort the laundry, or to entrust it to some one else, and such a mark is often of value in case of sudden illness, loss of memory or a lost child.

Provide metal or glass receptacles wherever matches are used. There should be a place for matches which have not yet been ignited and for burned matches. Many a disastrous fire has been started by a match being stepped on, or by the friction of the teeth of nibbling mice or rats, or by leaving matches where children could get hold of them.

Electric flat irons are responsible for a great many fires. The iron is left with the current turned on, and even although on an iron stand it often is the beginning of a disastrous fire.

Disconnect the iron entirely when leaving it only for a short time. In purchasing a new iron, preference may well be given to one which has an automatic control, or one which signals when the current is on.

Medicines which have been standing for some time should be thrown out, and especially so if labels are faded or corks deteriorated. Frequent small changes take place in preparation which have been opened, and which stand for some time, and which are imperfect, the action of the medicine may be so much altered when these changes are met by evaporation, the stronger medicine may be so much altered.

Where there is a loose step, a splintered tree limb, a loose carpet, a torn rug, or any other condition liable to cause injury, attention should be corrected before an accident happens, rather than after.

A young man was seriously injured the other day by falling down a poorly lighted stairway which he had no reason to know was there. It is better to recognize and think each in a critical problem through and prevent it before it happens.

Emma Gary Wallace.



And not only may the New Year's Day itself be happy but it is our wish that 1929 will bring to you new accomplishments, greater prosperity, happier days and the greatest measure of success and contentment that modern methods and prosperity are able to furnish.

— and a promise!

While we are wishing you this New Year's Greeting, we also make you a pledge—a promise of better and more complete hardware service in order that we may help in bringing to you better and more congenial working and living conditions. It will be our endeavor to keep our "Farm Service" Hardware Stores on such a high plane that you will be able to add to your prosperity through the better values and money savings which we will have to offer you.

Your "Farm Service" Hardware Men



That Old-Fashioned Feather Bed

IF YOU have an old-fashioned feather bed not in use you can make of it a thick and comfortable pad for a bed that has a thin mattress, or if for summer use you can make a mattress itself using two thick old comforts on top of it. Many people pay professionals to renovate their feathers and make them into a winter-summer pad simply by turning the winter side or the summer side upward according to the season.

Take the feathers all out of the tick and wash it, if it needs washing and when dry stitch crosswise on the sewing machine four or five times at regular intervals. Now fill these pockets with feathers from your supply, weighing if you want to be truly accurate. The middle portion of the tick or mattress should be stuffed tighter than the head, as there the greater weight will lie. If you like a tack here and there, as for a comfort, it will help hold the feathers in place.

Sew each division as filled, which may be done by sewing the mouth of the bag of feathers to the mouth of the crosswise pocket sewed in the tick and pushing them along without waste or trouble. It takes a little longer but is well worth the effort.

When done make a stout ticking cover for the pad, or one of stout unbleached muslin, to slip over and save washing the whole thing. Then over the top spread two old comforts cut to fit the pad and drop over the edges slightly and you will hardly need a mattress at all. These are very good for children's beds.

Hilda Richmond.

The Perfect Mother

ARE you a successful mother? There are five important questions to which you must be able to answer "yes," according to Uncle Sam's requirements for efficient motherhood. Dr. Arthur Stimson, Assistant Surgeon General of the United States, has issued an appeal to mothers that they provide their children with better food to prevent mal-nutrition.

This is the question which Uncle Sam is asking mothers of children: "Is the food served to my family nutritious, varied, well-balanced, appetizingly served and suited to the needs of each member of the family?" The other questions concern fresh air in the home, lighting, cleaning without dust, and a happy home atmosphere. The mother who can pass all these tests is rated the perfect mother by the government.

In stating the first importance of food as the householder's responsibility, Dr. Stimson says, "Milk is the best and cheapest food that can be bought. Every child should drink at least a quart a day of pasteurized milk."

The importance of a happy home life has much to do with the problems of nutrition in childhood.

"I have seen hundreds of children," says Dr. Stimson, "suffering from indigestion, mal-nutrition and nervous disorders simply because they had to

Big Smoke Mountain

"Author's Announcement"

TO those who have ordered this book: Let nobody suppose because of the delay, that the book will not be published. Work on it is going ahead almost day and night. At this writing the cover design and 50 illustrations, two in colors, have been made. That's the number I promised you. But I'm now expecting to have 18 more—68 in all—for good measure. I'm trying to make this the best illustrated story of pioneer life that has ever been published.

For some time I have had to suspend my writing. Another wilderness story, already three-fourths written, will have to wait till I have kept my word with those who ordered "Big Smoke Mountain."

Be assured that not one of you is half as eager as I am to see this book completed. Making good illustrations, like writing good stories, requires slow, pains-taking work. I am also making numerous small changes, not in the story itself but in the manner of telling it, which I hope will add to its picturesqueness.

The Pennsylvania Farmer will announce when the books are ready, and how to order.

Lewis B. Miller.

eat their meals at a table where their elders quarreled."

"If we grown-ups must air our differences, let us at least do our arguing out of the sight and hearing of children."

Timely Tips

Vinegar Hints

HOT vinegar will remove paint from glass.

Leather covered furniture can be saved from cracking if polished regularly with a paste made of one part vinegar and two parts linseed oil, bottled and shaken.

A little vinegar will make thick ink usable again.

A cloth wrung out of vinegar and then wrapped around cheese will keep it fresh and moist.

Chapped hands are relieved of soreness by applications of vinegar.

The goldfish bowl can be kept clear and free from all deposit if washed with a cloth dipped in vinegar.

Vinegar in the rinse water will revive the color in blue flannel.

Lillian Rude.

Dark Chocolate Cake

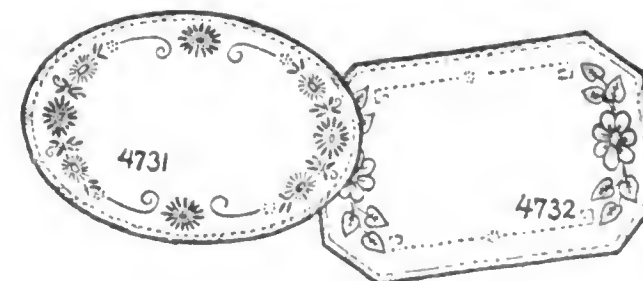
Mrs. L. B. wanted a good dark chocolate cake recipe, here is mine which I think is fine.

Devil food. Two eggs, two cups brown sugar, one-half cup butter, one-half cup buttermilk, two teaspoonsful soda dissolved in the milk, three table-spoonsful cocoa put in cup and filled with boiling water, two cupsful sifted flour, Frosting: Hickory nut filling, one cupful hot milk and eggs, one cupful buttermilk, one cupful sugar. Boil this mixture till thick and spread on cake and in layers.

Will some one send me a recipe to can apples?

MRS. W. W. F.

Hot Plate Pads



THESE hot plate pads are completely made up and bound with Indian Head with the padding included; in fact, they are entirely finished with the exception of the small amount of embroidery necessary for their ornamentation. The opening in back is finished with neat edge. They will make a very beautiful accessory for the table. Prices are as follows: 7 inch, 35 cents each; 9 inch, 45 cents each; 13 inch,

35 cents each. A detailed working chart showing exact color scheme and how to completely finish pad is furnished.

For 25 cents additional we will send our book The Art of Embroidery consisting of 10 complete lessons with 70 illustrations showing all the principal stitches. Address: Embroidery Dept., Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.



nurses know

Capable—and careful—the trained nurse administers our comfort. If there is pain, she gives a tablet to relieve it. That tablet is Bayer Aspirin. Experience has taught her it's quickest. The doctor has told her it's quite harmless. So it is safe to use in everyday life, any time you have an ache or pain. Take Bayer Aspirin at the first sign of a headache, cold, neuralgia, etc. Don't wait until the suffering has become severe. Be sure, though, to get Bayer. There is only one genuine Aspirin.

ASPIRIN
Aspirin is the trade mark of Bayer Manufacture of Monacettachester of Salicylic Acid

Extra Help for Big Washings

Try Fels-Naptha the next regular wash-day—when there's plenty of work to do. See how it gets the dirt out—clothes clean all the way through without hard rubbing. That's because Fels-Naptha brings you two safe, active cleaners combined in one golden bar. Plenty of naphtha, the dirt-loosener, and good soap, the dirt-remover. Working together they give extra help that lightens the wash, whether you use tub or machine. That's why so many housewives agree that . . .

Nothing can take the place of FELS-NAPHTHA

BUY IT BY THE CARTON OF TEN BARS



LADIES' FURS

We take furs and make them into coats, suits, minkies and ladies' furs at reasonable prices. Send us your furs and furs which you want remodeled and made into latest styles. Robes and coats at wholesale prices. Free Samples. Reference: Citizen's State Bank, Milford, Ind.

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207 Elm Street, Milford, Ind.

Keep up with the advertisements to keep abreast with progress. When answering them say you saw the ad in Pennsylvania Farmer.

Send All Orders to - - - **PENNSYLVANIA FARMER**, 7301 Penn Avenue, Pittsburgh, Pa.

Rupture Can Be Cured

Science Finds

Heals Without Operation, Delay
or Danger

New Discovery Seals Rupture—Masters
Human Scourge Which Defied Doctors for
Ages. Thousands Tell of Complete Cure;
Safety and Cleanliness Assured.

Try This New Way
FREE



Little Children, Rupture Sufferers. Whose Hope of Cure Was Slight Until the Discovery of New Scientific Cure of Hernia. May Now Look Forward to a Full Life, Free of the Painful and Dangerous and Costly Operation.

Sir William Harvey, English Scientist. Whose Discovery of the Circulatory System, Assisted So Greatly in Perfecting the New Medical Discovery Which Heals Rupture.

Rupture can be healed. Medical science, endless investigation, combined with modern inventiveness has devised a method which actually heals rupture. For ages, the healing of rupture, or hernia as it is known medically, has been the aim of countless physicians and surgeons.

The ancients' attempts at healing were mere gropings, as they knew nothing of the circulation of blood and its effect on body tissue and body growth. The various phases of growth were mysteries which they were unable to fathom. Since Sir William Harvey, an English scientist of the early seventeenth century discovered that blood really circulated through the body, sending life-giving materials to all parts of the human system, the path of the rupture scientists has been more easy to follow.

They attempted to find, if possible, some method of retaining the rupture safely, yet something which would allow free circulation of blood and not irritate the edges of the hernia or rupture and which would heal the tear.

Assists Nature to Heal

This has been done. Experiments carried on for more than 30 years have resulted in the perfection of an appliance, light, safe, comfortable and clean, which assists nature and really heals the rupture.

That the cures have been permanent ones is attested by letters written by the people themselves. These include people in every walk of life, people who make their living by hard work, where strains, heavy lifting and constant muscular effort is necessary. Others include society women, working women and women in moderate circumstances. The cures have been general in all classes.

Heals the Aged

In their zeal to prove the worth of the new process, men and women of advanced years were selected and their experiences recorded. A probe showed that even in this class, a great number of cases had resulted where the rupture had been present for many years.

separation of the muscle fibers in the walls of the abdomen. This separation is caused by a heavy strain, a violent jerking or unusual exertion. The fibers separate and allow a portion of the intestine to protrude through the opening. This results in a small knot or knob on the wall of the abdomen.

Before the investigation, which resulted in the discovery of this new method of healing, there were but two courses open. A physician or surgeon could be called and an operation performed or the patient or sufferer could seek some sort of comfort with a truss, which pushed itself into the rupture opening, keeping the protruding intestine inside the body.

The operation was expensive and dangerous, with the outcome a doubtful thing.

Truss Prevents Cure

If the truss was called into service, the hard leather knob was forced into the tear, where constant irritation wore thin the edges of the wound and the hard pressure prevented proper blood circulation. The sufferer was forced to resign himself to a lifetime of rupture suffering, never free from the harness of the truss. No hope was held out by scientists, that his rupture would ever cure itself, although many manufacturers of appliances contended that such a thing was possible; scientific investigation showed that it was impossible to heal the rupture as long as the heavy pad was being pushed into the rupture opening, separating the edges of the tear and wearing thin the edges of the torn section.

The heavy springs in the usual truss pressed into the body, many times injuring the kidneys and causing unrepairable damage to the back, where the heavy steel pressed into the tender nerves, centered in the spinal column. Besides this, so cruel was the old-fashioned truss, it was impossible to sleep in the apparatus, with the result that in sleep many times, the rupture "came out" and even a doctor was unable to replace it. When this happened, an immediate operation was necessary if the life of the patient was to be saved.

Strains of Unusual Positions Mean Nothing to Rupture Sufferers Now, as Science Has Perfected a Cure for Rupture Which Even During the Healing Stage Does Not Interfere with the Body Actions.

the dirt which accumulated caused a feverish condition which retarded the cure.

The great number of rupture cases among small children and babies made necessary some method which would eliminate forever the pushing pad, the dangerous operation and heavy steel encircling the body, injuring the delicate nerve centers.

Experiments Bring Cure

The experiments resulted in the discovery and perfection of the Brooks appliance. C. E. Brooks, a resident of Marshall, Michigan, was ruptured.

He soon found the deficiencies of the truss—the things it did to hinder cure and to retard healing. So he developed an appliance which did everything which the truss failed to do. With reverse logic he invented the rupture appliance which resulted in the many cures narrated.

Can Be Washed Daily

His appliance, built scientifically and recommended by physicians and doctors in all sections of the world, lays— not pushes—on the rupture. Small, light, clean, safe and comfortable, its soft velvet-like air cushion of hygienic rubber retains the rupture and at the same time tends to bring the edges of the tear together. The action of the small oval is to gently close the wound, and in this way allow growth. Nature, when assisted, soon repairs the damage wrought in the injured side and the result is a cure for the sufferer. The washable, sanitary feature, so necessary if cure is expected and health assured, was incorporated into this new invention.

He eliminated at once, all metal springs and hard, unyielding pads. Soft washable material encircles the body and acts as a support for the small oval. There are no features in the newly perfected appliance which do not work toward the cure of the patient. Every movement of the body results in the edges of the wound being brought closer together, reversing the action of the old style which constantly forced the edges of the wound apart.

Thousands Cured

It is no wonder then that so many people have been cured by this new discovery.

A check was taken over a period of years and letters written to hundreds who had worn the new device. Hundreds, literally thousands, torn for years by rupture and weakened by its effects, had gained freedom from all devices by the consistent use of the new invention.

Mrs. Thomas Scott of 11637 125th Street, Edmonton, Alta., Canada, said:

"One year ago I bought your rupture appliance for my little girl. She is now four and the rupture hasn't bothered her since I put the appliance on."

A brief period cured E. W. Brown of Norwich, N. Y., who states:

Never Sold at Stores

Unscrupulous advertisers are endeavoring to sell the public a cheap substitute for the Brooks Appliance, claiming that it is genuine. Do not be misled by imitations and substitutions. The genuine Brooks Appliance is never sold through agents nor at stores of any kind. Every appliance is made at Marshall, Michigan, to your individual requirements. Look for trademark bearing portrait of C. E. Brooks which appears on every appliance. None other genuine.

Free Trial

The financial standing of the people who make this newly perfected appliance is above reproach. They give as references, banks, ministers, physicians and express companies in their city or in practically any large city in the entire nation.

Fill out the coupon below and mail it today for our free trial offer. To delay may mean permanent ill health or even worse.

FREE TRIAL OFFER

Brooks Appliance Co.,
307 B State St., Marshall, Mich.

Please send me by mail in plain wrapper, information about your Appliance for the cure of rupture and your free trial offer.

Name.....

**End of
Volume**



**CONTINUED
ON
NEXT REEL**

END OF REEL
PLEASE
REWIND

